

A photograph of three young girls smiling at the camera. The girl in the center is wearing a yellow headscarf and a yellow scarf. The girl on the left is wearing a colorful patterned jacket. The girl on the right is wearing a patterned headscarf and a white turtleneck. The background is a simple indoor setting with a window and a doorway.

CHALLENGE TB APRIL - JUNE 2017

PERFORMANCE MONITORING REPORT



USAID
FROM THE AMERICAN PEOPLE



CHALLENGE TB



Challenge TB is USAID's flagship TB care and prevention project. It is implemented by a unique coalition of nine international organizations:

Led and managed by:

KNCV Tuberculosis Foundation

Coalition Partners:

American Thoracic Society (ATS)

FHI 360

Interactive Research & Development (IRD)

International Union Against Tuberculosis and Lung Disease (The Union)

Japan Anti-Tuberculosis Association (JATA)

Management Sciences for Health (MSH)

PATH

World Health Organization (WHO)

Cover photo:

Patients in a Children's TB Hospital, Dushanbe, Tajikistan
(Credit: Mahmatlatif Karimov)

This report was made possible through the support for Challenge TB provided by the United States Agency for International Development (USAID), under the terms of cooperative agreement number AID-OAA-A-14-00029.

Disclaimer

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.



CONTENTS

ABBREVIATIONS	4
EXECUTIVE SUMMARY	5
CORE PROJECTS	7
MAIN CHALLENGES	8
INTRODUCTION	9
GLOBAL FUND	10
COUNTRY PROJECTS	13
PMDT	14
NEW DRUGS AND REGIMENS	17
MOST SIGNIFICANT ACHIEVEMENTS	19
COUNTRIES	20
AFGHANISTAN	20
BANGLADESH	20
BOTSWANA	22
BURMA	22
DR CONGO	24
CAMBODIA	24
ETHIOPIA	26
INDIA	27
KYRGYZSTAN	28
INDONESIA	28
MALAWI	30
MOZAMBIQUE	30
NAMIBIA	32
NIGERIA	32
SOUTH SUDAN	34
TAJIKISTAN	34
TANZANIA	36
UKRAINE	36
UZBEKISTAN	38
VIETNAM	38
ZAMBIA	40
ZIMBABWE	40
EAST AFRICA REGION	42
CORE PROJECTS	43
PUBLICATIONS	45

ABBREVIATIONS

ACF	Active Case Finding	LTBI	Latent TB Infection
ACSM	Advocacy, communication and social mobilization	KNCV	KNCV Tuberculosis Foundation
aDSM	active TB Drug-Safety Monitoring and Management	MDR-TB	Multidrug Resistant Tuberculosis
AFB	Acid-fast bacilli	M&E	Monitoring and Evaluation
ART	Antiretroviral Therapy	MoH	Ministry of Health
BAIS	Botswana AIDS Impact Survey	MSH	Management Sciences for Health
CB-DOTS	Community-Based DOTS	MTB+	Mycobacterium Tuberculosis detected (GeneXpert MTB/RIF)
CCM	Country Coordinating Mechanism	NFM	New Funding Model
CDC	Centers for Disease Control and Prevention	NGO	Non-Governmental Organization
CHW	Community Health Worker	UNSE	United Nations Special Envoy
CI	Contact Investigation	NSP	National Strategic Plan
C/DST	Culture/Drug Susceptibility Testing	NTP	National TB Program
CPLT	Provincial TB and Leprosy Coordination Departments	NRL	National Reference Laboratory
CSCP	Community Sputum Collection Points	NTRL	National TB Reference Laboratory
CTB	Challenge TB	OR	Operations Research
DHIS2	District Health Information Software Version 2	PEPFAR	President's Emergency Plan for AIDS Relief
DM	Diabetes Mellitus	PIH	Partners in Health
DOT	Directly Observed Treatment	PLHIV	People Living with HIV
DOTS	Directly Observed Treatment Short Course	PMDT	Programmatic Management of Drug-resistant Tuberculosis
DQA	Data Quality Assessment	PMV	Patent Medicine Vendors
DRC	Democratic Republic of the Congo	PMU	Project Management Unit
DR-TB	Drug-Resistant TB	PPM	Private Public Mix
DST	Drug Susceptibility Testing	PR	Principal Recipient
ECSA	East, Central and Southern African Health Community	PV	Pharmacovigilance
ERR	Electronic Recording and Reporting	RIF	Rifampicin
EQA	External Quality Assurance	RR-TB	Rifampicin-resistant TB
FLD	First Line Drug	SLD	Second-Line Drug
GDF	Global Drug Facility	SOP	Standard Operating Procedure
GF	The Global Fund to fight AIDS, Tuberculosis and Malaria	SR	Sub-Recipient
GLC	Green Light Committee	TA	Technical Assistance
GLI	Global Laboratory Initiative	TB	Tuberculosis
HC	Health Center	TB-IC	TB Infection Control
HCW	Health Care Worker	TB CAP	Tuberculosis Control Assistance Program
HF	Health Facility	ToR	Terms of reference
IC	Infection Control	ToT	Training of Trainers
IDP	Internally Displaced Persons	TSR	Treatment Success Rate
IT	Information Technology	UNDP	United Nations Development Program
IPC	Infection Prevention Committee	USAID	United States Agency for International Development
IPT	Isoniazid Preventive Therapy	WHO	World Health Organization
JATA	Japan Anti Tuberculosis Association	XDR-TB	Extensively-Drug Resistant Tuberculosis
LED	Light Emitting Diode	Xpert	Xpert MTB/RIF
LMIS	Logistic Management Information System		



EXECUTIVE SUMMARY

Challenge TB (CTB) is the flagship global mechanism of the United States Agency for International Development (USAID) for Tuberculosis (TB) care and prevention.

This performance monitoring report summarizes project progress, achievements and challenges during the third quarter of Year 3, April-June 2017, across 22 country projects, the East Africa Regional project, and seven approved core projects. The total obligated amount as of June 30, 2017 is \$226 million, which is 43% of the ceiling amount of \$525 million. Thanks to CTB support six countries submitted Global Fund (GF) applications in the first window of March 20, 2017 as planned, and an additional 12 countries submitted in the second window of May 23, 2017. As of the end of June 2017, a total of 20 countries are now enrolling patients on new drugs bedaquiline and/or delamanid, and/

or shorter treatment regimens. Lastly, from May 29 – June 2 more than 50 CTB country directors, county technical staff, CTB coalition headquarter staff and USAID representatives participated in the 2017 CTB Country Director's Meeting. The participants shared successful approaches as well as the project's contributions to national level TB goals. Discussion focused on actionable strategies to improve project effectiveness and efficiency with a commitment from all in attendance to adopt and reflect these strategies in Year 4 workplans.

The project's most significant achievements from the reporting period, as well as challenges for the next quarter are highlighted over the next few pages.

Afghanistan - The needs of vulnerable populations continued to be addressed, by screening 3,000 persons using drugs and 1,000 persons diagnosed with mental health disorders. These screenings resulted in the diagnosis of 40 TB cases and one Rifampicin-resistant case. In addition, three GeneXpert machines were installed in Kabul, Nengarhar and Kandahar. Both these efforts particularly contributed to achievements in Kabul where more than 2,000 TB cases were notified this quarter and Urban DOTS implementation contributed to an 84% treatment success rate (TSR).

Bangladesh - The National TB Program (NTP) was supported in developing a strategy to initiate the STR, to create a scale-up plan and provided support in developing Standard Operating Procedures (SOPs), training materials, updated recording formats, and the establishment of a pharmacovigilance mechanism. CTB supported the NTP in the enrollment of 84 MDR-TB patients at the National Institute of Diseases of the Chest and Hospital (NIDCH).

Botswana - With the re-opening of Botswana's laboratory, the NTP/Ministry of Health (MoH) adopted GeneXpert as the initial diagnostic test for all presumptive TB patients and as of this quarter the National TB Reference Laboratory (NTRL) revised its diagnostic algorithm in accordance.

Burma - In line with PMDT-related activities for the introduction of new drugs and regimens (ND&R), CTB supported the development and finalization of a national aDSM manual and helped establish a National Core Committee (NCCA) for the monitoring of adverse reactions to TB drugs.

Cambodia - Support was provided to the National Drug Resistance Survey – now in field data collection, with 419 confirmed TB patients enrolled – through trainings of survey recruiters and participants alike. In addition, CTB provided support to three laboratory sites for an international TB lab expert to build capacity in the quality and volume of TB culture and DR-testing required during survey implementation.

DR Congo - The expansion of GeneXpert testing was supported through the training of lab technicians, provision of solar kits and improvements in the sputum transport system. As a result, CTB sponsored analysis of GeneXpert utilization (for presumptive TB patients), which demonstrated an increase in utilization from 16% to 34% for the reporting quarter.

Ethiopia - Active case finding (ACF) efforts outside of health facilities continue to produce a better yield in case-finding than passive case-finding when compared to the national notification rate. In this quarter, TB screening reached 87,200 people living in 60 congregate settings with 6,722 (8%) identified as presumptive TB, resulting in 261 TB patients diagnosed (4%). In addition, through the procurement of maintenance tools and training for biomedical engineers, more than 40 machines and pieces of medical equipment at St. Peters TB specialized hospital are now back in working order.

India - The country showed high political will and commitment to end TB at the National TB-Free India Summit organized by USAID, GF, WHO, Himachal Pradesh Cricket Association (HPCA), and The Union under CTB. In addition to a letter of support from Prime Minister Modi and a speech from the Minister of Health &

Family Welfare, TB visibility and awareness increased through 244 news media articles, commitments from 14 corporate partners and the presence of 11 MPs and 14 celebrities.

Indonesia - CTB facilitated programmatic management of drug-resistant TB (PMDT) improvement self-assessments in six referral hospitals in CTB supported provinces using the CTB-Indonesia benchmarking tool for PMDT developed by ATS and KNCV. ATS provided technical assistance (TA) for self-assessments in three of these sites. Improvement plans were developed for each site, with a focus on quality MDR-TB care and case management, and plans for distance mentoring were developed.

Kyrgyzstan - CTB is working with the NTP to guide a careful patient-orientated approach to ND&R including case management for consultants, clinicians, and invited psychologists. In total, 77 out of 82 patients (94%) receiving an individualized treatment regimen (ITR) with BDQ, continued treatment by the end of the quarter with only one person lost to follow up. In addition, of the first 28 patients enrolled on BDQ treatment in the first quarter of 2017 (with a known culture result) 19 (68%) achieved smear conversion, 16 (57%) reached culture conversion and 17 (61%) were discharged for outpatient treatment.

Malawi - With support from CTB, the upgrade of the National TB Reference Laboratory (NTRL) is final and officially handed over to the NTP in April, after which TB culture and DST services resumed. A follow-up lab assessment identified a short list of final improvements, all addressed by June. Mass TB screening took place in two prisons – Maua (total

population 2,962) and Chichiri (total population 1,981) - and was significantly aided through the use of mobile chest X-ray. In Maua, more than 68 TB cases were identified (2% of the 2,818 individuals screened) while in Chichiri, 66 cases were identified (3% of the 1,917 screened) representing a 60% increase over screening efforts in prior quarters. All identified TB patients were enrolled on treatment.

Mozambique – CTB supported the implementation of second-line line probe assay (SL-LPA) through training from the supranational reference laboratory, purchase of SL-LPA kits and Genotype CM as well as a refresher training provided at no-cost by the Hain company. Validation samples using SL-LPA are now being compared to the same samples processed at the CISM-Manhica Health Research Center with plans for SL-LPA processing to start in July.

Nigeria – The implementation of contact investigation (CI) continues in CTB-supported states, with 7,493 TB index patient homes visited to date and an average of four contacts identified per person. Eight-six percent (25,830) of these contacts were screened, 6,103 (24%) presumptive TB cases were identified and 5,932 (97%) were tested and examined. As a result, 819 TB cases were diagnosed (14%).

South Sudan – BDQ was introduced in the country in April 2017 with 12 adult patients enrolled. As of June 2017, a total of 12 GeneXpert RR-TB patients in the CTB intervention area were enrolled on MDR-TB treatment on an ambulatory basis.

Tajikistan – CTB supported the NTP in implementation of SL-LPA for detection of drug resistance to second line drugs (SLD). CTB procured five kits to cover interim gaps in the country's supply, developed training materials/SOPs and facilitated training for five staff from the National Public Health Laboratory (NHPL), National Reference Laboratory (NRL, Machiton hospital) specialists. Post-training, a total of 156 samples were tested in both laboratories with 16 pre- and 5 XDR-TB cases identified.

Tanzania – Following efforts to strengthen linkage of community TB care interventions with health facilities, CTB Tanzania has noted an increase in cases notified as a result of in CI conducted by volunteers. In the third quarter 204 (7%) TB cases were diagnosed out of 3,146 close contacts screened compared to 123 (6%) out of 2,113 in the second quarter. Out of those screened 76 and 216 from quarter 2 and 3

respectively were referred to health facilities to be assessed for TB preventive therapy. Similarly, community-based organizations (CBOs) engaged in community TB care activities diagnosed 179 (7%) TB cases out of 2,429 screened in quarter 3 compared to 83 (4%) out of 1,873 in the second quarter. In addition TB/HIV care and treatment indicators continue to improve with 99% (6255/6278) of TB patients tested for HIV and a similar proportion (99% - 1,872/1,884) registered for care and initiated on antiretroviral therapy (ART) (98% - 1839/1884).

Ukraine – CTB continues to support local NGOs and oblast branches of the Ukrainian Red Cross Society (URCS) on provision of medical, social, and psychological support for MDR-TB patients during the ambulatory phase of treatment. While the MDR-TB TSR for the country is slowly growing from 2012-2014 (40%, 39%, and 47%, respectively), significant and stable growth in treatment outcomes (39%, 58%, and 59%) is observed in Mykolaivska oblast during CTB project implementation. The Mykolaivska oblast is in first place according to treatment outcomes rates among all regions in Ukraine. Two hundred doses of BDQ were also successfully distributed to the National TB Institute due to the active support and advocacy of the project. Enrollment of patients on treatment using BDQ will start in July.

Uzbekistan – A concept note and the Uzbekistan country proposal (a continuation request) for the coming GF grant (2018-2020) was developed with CTB support. It is supported by the GF Secretariat for grant making in June 2017. In addition, a CTB multidisciplinary team performed an initial assessment on TB care and prevention in Jizzakh oblast to identify TA needs and recommended activities for improvement of PMDT, including implementation of rapid TB diagnostics (Xpert MTB/Rif, SL-LPA) and ND&R. A two-year CTB sub-project concept and budget was developed, aiming at improving the quality of diagnosis, care and treatment in Jizzakh oblast.

Vietnam – In collaboration with the An Giang Provincial Preventive Medical Center, CTB conducted a screening of individuals attending the daily Methadone Maintenance Treatment (MMT) clinics in three remote - border areas districts. Screening included chest X-ray, sputum smear examination and a GeneXpert test. To date 509 people were screened for TB of which 69 (14%) had abnormalities suggestive for TB on their chest X-rays, eight patients

(1,572/100,000 prevalence of people attending MMT clinics) had bacteriological confirmation for TB (five sputum smear positive and three Xpert MTB+). There were no RR positive Xpert results. All eight bacteriological confirmed TB cases were registered and put on TB treatment. The 69 patients with abnormalities on their chest X-rays will be further assessed according NTP guidelines for sputum smear negative or extra-pulmonary TB.

Zambia – The project supported the NTP to revise the National GeneXpert Implementation Plan including guidelines, to meet international recommendations on making Xpert the first line test for all presumptive TB patients. In addition, CTB supported the revision of the National TB Treatment Guidelines and the Diagnostic algorithm to update current practices to internationally recommended best practices. The revisions include ND&Rs that will soon be introduced in Zambia.

CORE PROJECTS

GF Hub - As in quarter 2, the focus on GF support for quarter three in most CTB countries was on development of GF applications for the 2017-2019 funding cycle. During this third quarter much of the GF Hub's attention was on supporting countries with 2017-2019 funding cycle. A total of 14 GF applications from CTB countries were submitted on May 23 with CTB support for TA to develop the applications including several stakeholder workshops.

Bedaquiline (BDQ) - As of the end of June 2017, a total of 20 countries were enrolling patients on BDQ or Delamanid (DLM)-containing regimens or STR. Eight countries (Burma, Cambodia, Ethiopia, Indonesia, Nigeria, Tanzania, Zambia, and Zimbabwe) plan to introduce the STR in the coming months and Nigeria and Zambia plan to introduce BDQ-containing regimens.

MAIN CHALLENGES

Kyrgyzstan – Several episodes of TB drug delays or shortages due to weak logistic procedures and discrepancies between the estimated and actual numbers of enrolled patients. This resulted in a treatment waiting list for BDQ or prescription of suboptimal treatment regimens (for example, lack of Imp/CIs). CTB already initiated discussions with all involved partners (NTP, MoH, UNDP) and suggested to the ordering of additional drugs, including BDQ.

Malawi – There is a lack of adequate resources to cover the training needs of health care workers. Trainings such as childhood TB, CI and GeneXpert algorithm were not rolled out to all CTB districts due to limited resources, which poses a challenge in meeting targets. CTB only conducted one training on the new GeneXpert algorithm for nurses and clinicians due to limited resources, but more trainings including updates for laboratory staff are planned for Year 4.

Mozambique – Delays in the identification of a contractor to perform minor renovations in eight laboratories has resulted in sub-optimal functioning.

Tajikistan – There is a lack of food in Machiton hospital where most patients start treatment regimens containing BDQ. Although the CTB team provided support for the treatment of DR-TB, the lack of food remains a key challenge. Most patients prefer ambulatory treatment and refuse to continue treatment after two or three weeks of being in the hospital.

Ukraine – Delays in the implementation of ND&R are due to the drugs not being registered in country, however CTB has managed to execute an agreement with the National TB Institute, which has a special status under the National Academy of Medical Science and can use unregistered drugs, in order to enroll 200 patients from three project oblasts to initiate treatment with BDQ.

Uzbekistan – Delays in the delivery of GeneXpert machines.

Zimbabwe – A number of planned activities, such as province to district and district to facility support and supervision visits, were not completed due to continuing acute cash shortages as a result of the prevailing economic situation.



INTRODUCTION

Challenge TB (CTB) is USAID's flagship global mechanism for implementing the United States Government (USG) TB strategy as well as contributing to TB/HIV activities under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). Launched on October 1, 2014, this five-year cooperative agreement (2014-2019) builds and expands upon previous USAID global programs, namely TB CARE I (2010-2015), the Tuberculosis Control Assistance Program (TB CAP, 2005-2010) and Tuberculosis Control Technical Assistance (TBCTA, 2000-2005). KNCV Tuberculosis Foundation (KNCV), which also led the aforementioned programs, leads a unique and experienced coalition of nine partners implementing CTB. The coalition partners are: American Thoracic Society (ATS), FHI 360, Interactive Research and Development (IRD), International Union Against Tuberculosis and Lung Disease (The Union), Japan Anti-Tuberculosis Association (JATA), Management Sciences for Health (MSH), PATH, and the World Health Organization (WHO).

Working closely with Ministries of Health, USAID, Global Fund, the STOP TB Partnership and other key stakeholders at a global, regional, national and community level, Challenge TB contributes to the WHO End TB Strategy targets:

Vision: A world free of TB

Goal: To end the global TB epidemic

By 2025: A 75% reduction in TB deaths (compared with 2015) and less than 50 cases per 100,000 population.

Aligned with the USG strategy to prevent and control TB, Challenge TB has three objectives, each with several focus areas for interventions:

Objective 1: Improved access to high-quality patient-centered TB, DR-TB & TB/HIV services by:

Improving the enabling environment

Ensuring a comprehensive, high quality diagnostic network

Strengthening patient-centered care and treatment

Objective 2: Prevent transmission and disease progression by:

Targeted screening for active TB

Implementing infection control measures

Managing latent TB infection

Objective 3: Strengthen TB service delivery platforms by:

Enhancing political commitment and leadership

Strengthening drug and commodity management systems

Ensuring quality data, surveillance and monitoring & evaluation

Supporting human resource development

Building comprehensive partnerships and informed community engagement.

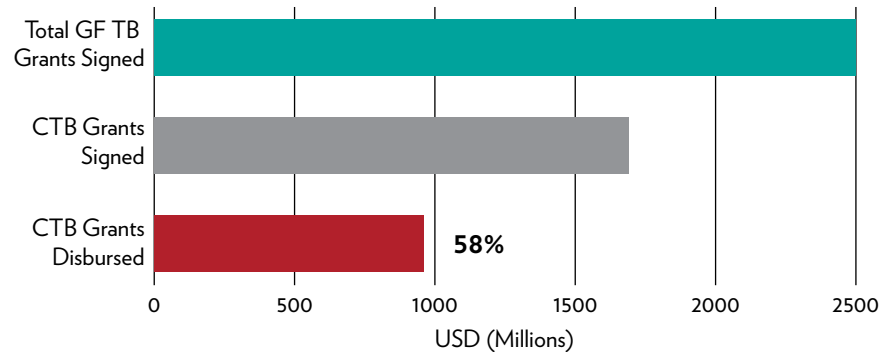


CTB implements projects at country, regional and international/global level with the majority of the program's work being done through country-specific projects. As of June 30, 2017, 22 countries were implementing CTB. At the regional level, CTB continued implementation of the East African Region project (more information available on page 42), and also continued the implementation of six core projects this quarter (see pages 7 and 42 for more details).

GLOBAL FUND

CTB is operating in 22 countries with a total of 37 signed GF grants. Of the USD 2.5 billion invested in TB by the GF, USD 1.68 billion is managed within CTB countries. As seen below, among the 37 grants, the average disbursement performance is 58%, which is quite low considering most grants in CTB countries finish at the end of this year.

Average GF grant disbursement rate in CTB countries



CTB is working closely with the respective principal recipients at the country level to provide TA and support for acceleration plans. Unfortunately, it is difficult for CTB to have any direct influence on the speed and level of spending. The table on page 11 shows the details all 37 grants with a breakdown of the financial data as provided on the GF website (end June 2017).

Global Fund 2017-2019 funding cycle—submission windows 1 and 2:

During this quarter much of the GF Hub's attention has been on supporting countries with 2017-2019 funding cycle. A total of 12 GF applications from CTB countries were submitted on May 23 with CTB support for TA to develop the applications including several stakeholder workshops. During this quarter, a total of 13 external TA visits were completed in Cambodia, Ethiopia, Indonesia, Namibia, Nigeria, Tajikistan, Tanzania, and Zambia. In addition, an Epi-Assessment in Nigeria was supported. The CTB country team in Afghanistan supported the development process and no external TA was needed.

In early May, UNAIDS and WHO hosted a peer review workshop for African countries submitting GF applications in May. A total of 18 countries participated in the workshop, of which five were CTB countries. The GF Hub provided support for three persons to attend the workshop; the CTB Tanzania Country Director and three consultants supporting Tanzania and Zambia.

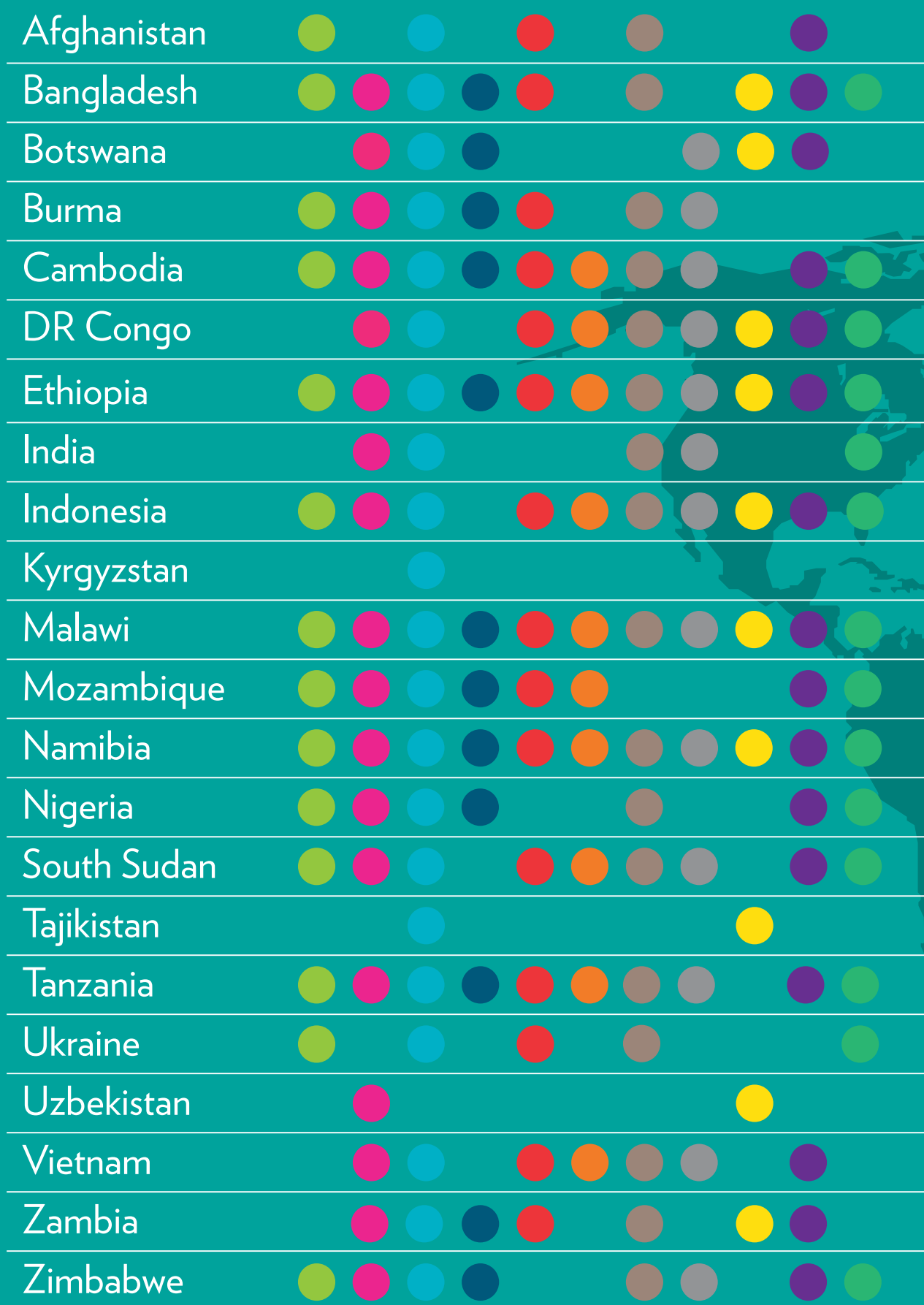
By the end of this quarter, CTB had successfully supported 18 countries with the development and timely submission of their Global Fund 2017-2019 applications. A total of 52 short-term technical assistance (STTA) visits were planned, of which 46 are completed, two were cancelled and the remaining four STTAs are meant for grant making. Seventy-nine percent of the TA was external and 17% was local. Two CTB country teams were able to support the process without external assistance.

As reported last quarter, six CTB countries submitted their GF applications in the first window ending on March 20. During this quarter all six countries received feedback from the GF Technical Review Panel (TRP) that their applications were approved for grant making. The TRP review for the applications submitted in May was conducted in June and as of late July, seven CTB countries were informed that their applications were approved for grant making.



Score card of CTB countries GF grant disbursement performance

CTB Countries	Grant Name	NFM Start Date	NFM End Date	Signed Amount	Disbursement Performance %						
					May-16	Jul-16	Oct-16	Jan-17	Apr-17	May-17	Jun-17
Ukraine	UKR-C-AUA	Jan-15	Dec-17	66,268,901	46	46	70	76	83	83	89
Ukraine	UKR-C-AUN	Jan-15	Dec-17	63,279,884	56	56	63	80	83	83	88
Kyrgyzstan	KGZ-C-UNDP	Jul-16	Dec-17	18,617,455	20	20	20	42	42	79	79
Bangladesh	BGD-T-NTP	Jul-15	Dec-17	31,745,708	41	41	41	52	67	74	78
Bangladesh	BGD-T-BRAC	Jul-15	Dec-17	45,638,447	42	42	42	42	63	76	76
Tanzania	TZA-T-MOH	Jul-15	Dec-17	21,377,285	26	35	26	56	56	56	76
Cambodia	KHM-T-CENAT	Jan-15	Dec-17	15,664,272	26	42	42	58	68	71	71
DR Congo	COD-T-MOH	Jul-15	Dec-17	13,831,917	35	35	51	51	70	70	70
Ethiopia	ETH-T-FMOH	Jul-15	Dec-17	58,177,462	26	26	26	26	63	65	70
Vietnam	VNM-T-NTP	Jul-15	Dec-17	39,979,032	34	34	34	58	58	69	69
Afghanistan	AFG-T-UNDP	Apr-15	Dec-17	11,002,846	42	42	46	59	59	69	69
Ukraine	UKR-C-UCDC	Jan-15	Dec-17	3,373,393	27	37	61	61	61	61	67
Zambia	ZMB-B-MOH	Jul-15	Dec-17	100,702,951	n/a	n/a	n/a	42	49	61	67
Afghanistan	AFG-T-MOPH	Jan-15	Dec-17	2,230,197	31	31	53	53	60	65	65
Zambia	ZMB-C-CHAZ	Jul-15	Dec-17	53,837,477	n/a	n/a	n/a	47	61	61	64
DR Congo	COD-T-CARITAS	Jul-15	Dec-17	38,964,682	23	23	45	53	62	63	63
Namibia	NMB-T-MOHSS	Oct-13	Dec-17	22,491,960	48	52	48	29	53	53	62
South Sudan	SSD-T-UNDP	Jul-15	Dec-17	15,512,452	38	38	44	44	56	56	57
Indonesia	IDN-T-MOH	Jan-16	Dec-17	70,392,709	8	25	25	43	45	56	56
India	IDA-T-WVI	Oct-15	Dec-17	6,904,741	22	28	33	54	54	54	54
Botswana	BWA-C-ACHAP	Jan-16	Dec-18	16,798,970	18	18	18	25	41	41	54
Mozambique	MOZ-C-FDC	Jul-15	Dec-17	22,026,026	16	16	36	42	52	53	53
Tanzania	TZA-C-STC	Jul-15	Dec-17	13,059,126	10	28	10	44	52	52	52
Mozambique	MOZ-T-MOH	Jul-15	Dec-17	40,618,490	15	16	17	30	38	38	51
Indonesia	IDN-T-AISIYA	Jan-16	Dec-17	21,200,718	7	16	20	25	25	25	50
India	IDA-T-CTD	Oct-15	Dec-17	207,785,667	13	13	26	50	50	50	50
Zimbabwe	ZWE-T-MOHCC	Jan-15	Dec-17	38,789,240	30	30	30	48	50	50	50
Botswana	BWA-C-BMOH	Jan-16	Dec-18	10,244,837	7	7	7	17	17	50	50
India	IDA-T-IUATLD	Oct-15	Dec-17	23,152,396	13	27	37	48	48	48	48
Malawi	MWI-C-AA	Jan-16	Dec-17	29,287,078	16	16	16	30	41	41	41
Tajikistan	Tjk-T-HOPE	Jan-16	May-18	13,249,973	3	9	3	16	31	31	41
Malawi	MWI-C-MOH	Jan-16	Dec-17	285,215,022	5	3	3	3	3	31	40
Tajikistan	Tjk-T-RCTC	Jan-16	May-18	4,666,695	7	7	7	15	29	29	29
Nigeria	NGA-T-IHVN	Jul-15	Dec-17	60,691,288	16	16	16	16	26	26	26
Nigeria	NGA-T-ARFH	Jul-15	Dec-17	85,096,981	7	7	7	25	25	25	25
Uzbekistan	UZB-T-RDC	Jul-16	Jul-18	17,948,240	5	5	5	25	25	25	25
Burma	MYN-T-SCF	Jan-13	Dec-16	18,914,228	214	74	74	n/a	n/a	n/a	n/a
Burma	MYN-T-UNOPS	Jan-13	Dec-16	80,633,776	16	64	64	n/a	n/a	n/a	n/a
1,689,372,522											



Sub-Objectives



CHALLENGE TB COUNTRIES

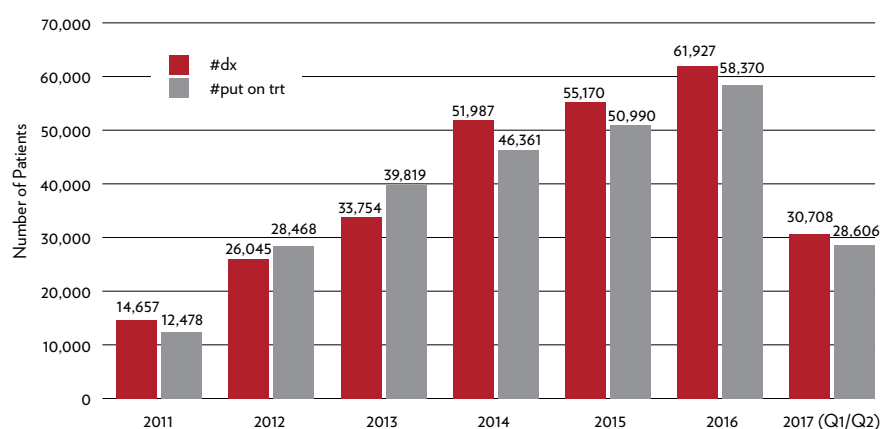
As of June 30th, 2017, 22 countries were implementing CTB. The table summarizes the technical reach of the approved Year 3 CTB country work plans.



- 1 Enabling Environment
- 2 Comprehensive, high quality diagnostic network
- 3 Patient-centered care & treatment
- 4 Targeted screening for active TB
- 5 Infection Control
- 6 Management of latent TB infection
- 7 Political commitment & leadership
- 8 Comprehensive partnerships and informed community involvement
- 9 Drug and commodity management systems
- 10 Quality data, surveillance and M&E
- 11 Human resource development

CTB is supporting the implementation of PMDT and the project is monitoring MDR-TB diagnosis and treatment data quarterly to track progress in PMDT scale-up and to inform project activities at the country and global levels. CTB relies on data reported officially to WHO (WHO Global Report 2016), and also gathers data directly from NTPs for the most recent quarters in each country. The table on page 16 summarizes the number of MDR/RR-TB patients diagnosed and the number of patients (unconfirmed and confirmed) started on treatment from 2011 through June 2017. In the figure below the totals per year are summarized to capture the overall trend across CTB countries.

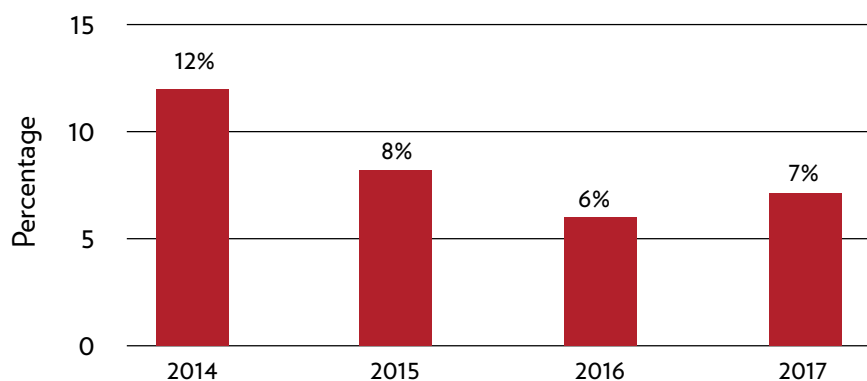
Number of confirmed RR-/MDR-TB patients (Xpert and C/DST) diagnosed, and number of unconfirmed and confirmed RR-/MDR-TB patients started on treatment, 2011-2017 (2011-2015: WHO Global TB Database; 2016-2017 data reported from the NTP via CTB), 22 CTB countries



Data from 14 countries are based on projections of (equal level) 2016 data

The data for 2016 and 2017 need to be interpreted with some caution as these data are reported by NTPs via CTB and may be different after validation, when they are reported to WHO for the Global TB Report 2017 and 2018. Based on these data, a 21% and 27% increase was recorded in diagnosis and treatment initiation respectively, from 2014 (CTB baseline) to 2016 in all 22 CTB countries. Again, based on this 2016 data, more pronounced increases over this period are noted in Botswana (166% in number of diagnoses and 49% in treatment initiation), Nigeria (84% and 192%, respectively), Indonesia (70% and 51%, respectively), Mozambique (67% and 89%, respectively), Afghanistan (61% in both), DR Congo (59% and 41%, respectively), Ethiopia (46% and 32%, respectively), and India (31% and 36%, respectively). The approximate gap between diagnosis and treatment initiation has decreased from 12% in 2014 (CTB baseline) to 6% in 2016 and 7% to date in 2017. Based on 2016 data, the biggest gaps are observed in Indonesia (58%), Burma (27%), and Nigeria (19%).

Gap between diagnosis and treatment initiation, 2011-2017 in 22 CTB countries



Data from 13 countries are based on projections of (equal level) 2016 data; Zambia data.





Diagnosis of confirmed RR-/MDR-TB (Xpert and C/DST) as well as treatment initiation for unconfirmed and confirmed RR-/MDR-TB, 2011-2017 in 22 CTB countries (2011-2015: WHO Global TB Database; 2016-2017 data reported from the NTP via CTB; data that are not yet available have been extrapolated based on available data and appear in red)

Countries	WHO Data												NTP data via CTB			
	2011		2012		2013		2014		2015		2016		Jan - Mar 2017		Apr - Jun 2017	
	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt
Afghanistan	19	21	31	38	49	49	88	88	81	81	142	142	37	37	33	33
Bangladesh	509	390	513	513	544	684	994	945	954	880	971	918	214	213	243	230
Botswana	46	46	53	58	62	99	41	73	57	61	109	109	23	23	27	27
Burma	690	163	778	442	1,602	667	3,495	1,537	2,793	2,207	3,213	2,537	848	664	803	634
Cambodia	56	57	60	110	9	121	110	110	77	75	101	101	32	32	41	41
DR Congo	121	128	81	262	54	147	442	436	499	413	703	614	179	149	176	154
Ethiopia	212	199	284	289	522	413	503	557	597	597	733	733	177	182	183	183
India	4,237	3,378	12,343	14,117	15,010	21,093	25,748	24,073	28,876	26,966	33,820	32,682	8,455	8,171	8,455	8,171
Indonesia	383	260	428	426	502	809	1,812	1,284	2,135	1,519	2,217	1,457	625	388	625	388
Kyrgyzstan	806	492	958	775	1,160	1,064	1,267	1,157	1,116	1,158	1,267	1,130	317	283	317	283
Malawi	26	16	27	26	23	21	106	64	93	65	66	62	15	15	17	16
Mozambique	184	146	266	213	359	313	544	482	646	646	911	911	228	228	228	228
Namibia	192	242	206	288	180	170	350	327	320	308	370	351	74	74	106	103
Nigeria	95	38	107	125	115	426	798	423	1,241	656	1,468	1,236	314	179	367	309
South Sudan	-	-	3	-	1	-	3	-	20	0	10	0	3	3	8	8
Tajikistan	604	380	694	535	448	625	902	804	675	636	748	743	244	206	187	210
Tanzania	68	68	49	44	55	93	516	143	178	123	185	162	53	45	44	38
Ukraine	4,305	4,957	6,934	7,672	9,650	9,000	7,735	8,201	9,397	9,787	9,345	9,322	2274	2232	1963	1920
Uzbekistan	1,385	855	1,728	1,491	3,030	2,647	3,844	3,665	2,149	2,149	2,149	2,127	537	532	537	532
Vietnam	601	578	273	713	207	948	2,198	1,523	2,602	2,131	2,693	2,450	673	562	673	613
Zambia	-	-	80	97	79	79	79	79	196	99	196	99	61	25	49	25
Zimbabwe	118	64	149	234	93	351	412	381	468	433	510	484	117	101	128	121
Total	14,657	12,478	26,045	28,468	33,754	39,819	51,987	46,361	55,170	50,990	61,927	58,370	15,500	14,342	15,209	14,264

Data from 13 countries are based on projections of (equal level) 2015 or 2016 data.

NEW DRUGS AND REGIMENS (ND&R)

From the beginning of 2016 through the end of June 2017, 2,710 eligible patients³ started on ND&R in 20 countries (18 have BDQ, eight include DLM, and nine include STR). In

total from April-June, 306 patients were started on BDQ, 11 patients were started on DLM, and 442 patients were started on STR.

Number of eligible patients started on BDQ, DLM or STR (national data) in CTB countries in 2016 and 2017

Country	# eligible patients started on BDQ			# eligible patients started on DLM			RR-/MDR-TB cases started on STR			# of BDQ or DLM treatment initiation sites		
	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)
Afghanistan								6	N/R			
Bangladesh	39	17	25	4	27	2		2	84	1	1	1
Botswana	0	0	0							1	1	5
Burma	12	7	2	7	7	0				1	1	1
Cambodia		1	1								1	1
DR Congo	13	5	6				442	136	125	1	2	0
Ethiopia	12	2	12	5	2	8				1	1	2
India	225	152	161						N/R ⁴	6	6	18
Indonesia	46	14	20							2	3	0
Kazakhstan	157	N/R	N/R	49	N/R	N/R				N/R	N/R	N/R
Kyrgyzstan		28	52					54	14		2	2
Mozambique	1	11	0		5	0	22	41	51	0	6	0
Namibia	12	9	4	1	0	1				2	2	0
South Sudan	0	0	12									3
Tajikistan	12	12	11	4	0	0	3	16	22	2	3	1
Tanzania	0	3	0							0	1	0
Uzbekistan	127	0	0						146	2	2	4
Vietnam	85	11	0				101	0	0	3	3	0
Zimbabwe	2	0	0		2	N/R					N/R	N/R
Total patients/ Initiation Sites	743	272	306	70	43	11	568	255	442	22	35	38
Total Countries	15	16	18	6	7	8	4	7	9			

³ Eligibility varies by country but should follow WHO/NTP criteria, which usually entails pre-XDR, XDR-TB and MDR-TB patients with adverse drug reactions and/or poor tolerance to standard second line drugs.

⁴ India began to enroll cases on STR in June 2017

BDQ, DLM and STR not yet introduced in Malawi, Nigeria, Ukraine and Zambia as of the end of June 2017

No CTB country project is implemented in Kazakhstan

N/R - not reported. If cell is blank, then N/A.

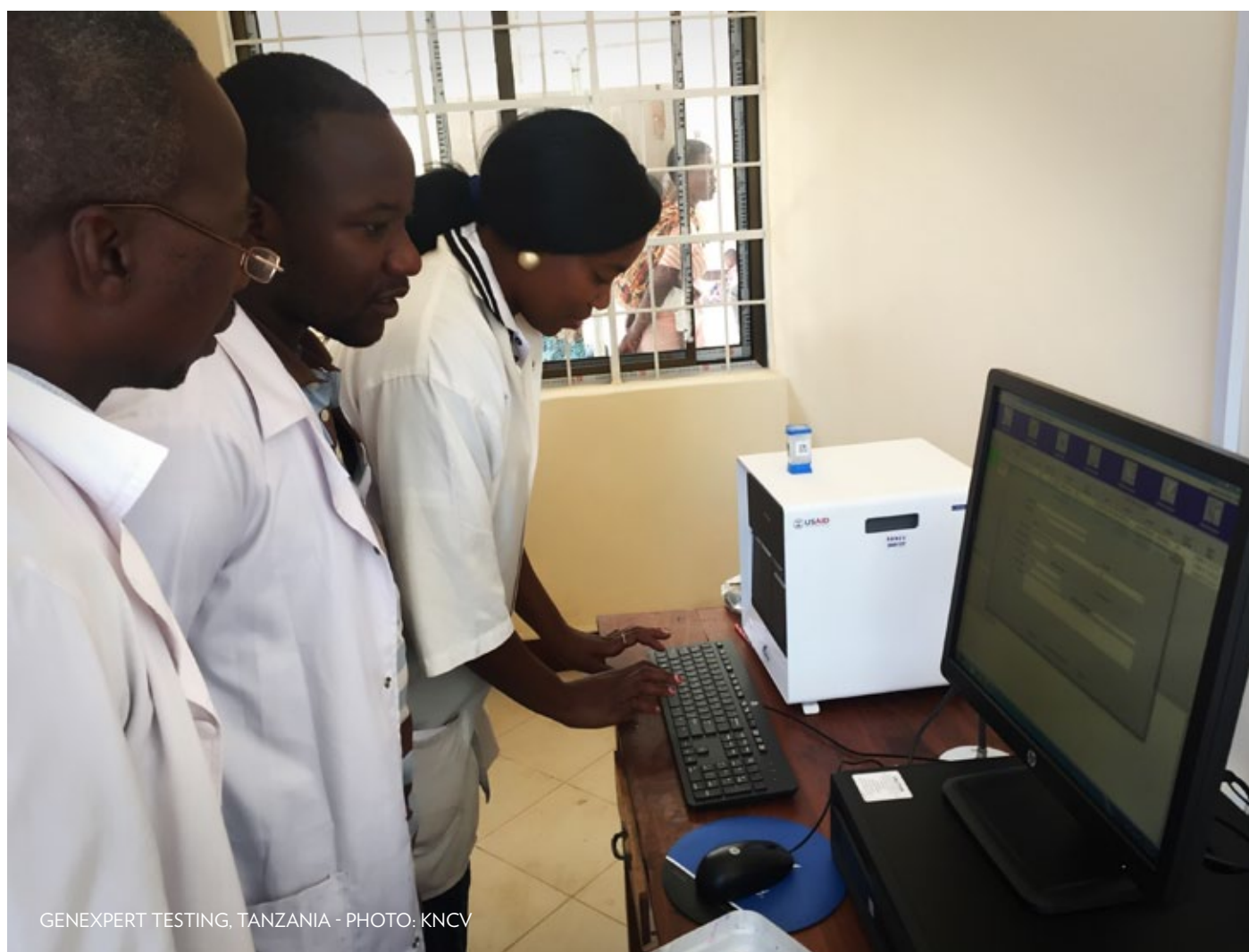
By the end of June 2017, a total of 11 CTB countries reported BDQ/DLM/STR-related severe adverse events (SAEs). In total, 59 patients were reported with BDQ-related

SAEs; 13 patients were reported with BDQ-related SAEs leading to death during Apr-Jun 2017 (see below).

BDQ/DLM/STR-related SAEs and SAEs leading to death (national data) in 11 CTB countries in 2016 and 2017

Country	BDQ- Total # of reported SAEs			BDQ- Total # of reported SAEs led to a death			DLM- Total # of reported SAEs			DLM- Total # of reported SAEs led to a death			STR- Total # of reported SAEs			STR- Total # of reported SAEs led to a death		
	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)	2016	2017 (Q1)	2017 (Q2)
Bangladesh	2	1	10	1	1	2	0	0	0	0	0	0	0	0	N/R	0	0	N/R
Burma	6	4	0	0	0	0	1	0	0	0	0	0						
DR Congo	13	5	6	5	1	1							0	0	0	0	0	0
Ethiopia	3	0	0	0	0	0	1	0	0	1	0	0						
India	61	37	41	5	4	9												
Indonesia	18	3	N/R	0	0	N/R												
Kyrgyzstan		1	1		1	1							0	1	0	0	0	0
Namibia	0	0	0	0	0	0	0	0	0	0	0	0						
South Sudan	0	0	0	0	0	0												
Tajikistan	0	0	1	0	0	0	N/R	N/R	N/R	N/R	N/R	N/R	0	0	0	0	0	0
Vietnam	0	0	N/R	0	0	N/R							N/R	N/R	N/R	N/R	N/R	N/R
Total events	103	47	59	11	7	13	2	0	0	1	0	0	0	1	0	0	0	0
Total countries	9	10	9	9	10	9	4	4	4	4	4	4	4	4	3	4	4	3

N/R - not reported. If cell is blank, then N/A.



GENEXPERT TESTING, TANZANIA - PHOTO: KNCV

MOST SIGNIFICANT ACHIEVEMENTS

The progress and achievements from January to March 2017 for the 22 CTB country projects active during the quarter, are summarized on the following pages. A notable event this quarter was the commemoration of World TB Day (March 24) across all CTB countries. CTB's involvement varied from country to country, but CTB-supported activities included

large advocacy events attended by high-level governmental officials and celebrities (e.g., India, Zimbabwe), public awareness/mass media campaigns (e.g., India, Bangladesh, Burma), celebration of important milestone of providing access to treatment at CTB supported sites (Namibia), a TB screening campaign among targeted groups (Zimbabwe).





AFGHANISTAN

CTB-Afghanistan, led by MSH and with KNCV as a collaborating partner, aims to assist the NTP to reach its strategic objective of increasing TB case notifications by at least 6% annually through the provision of quality TB services to all communities. The project works in 15 of the country's 34 provinces.

Urban DOTS implementation - Urban DOTS is implemented in six urban cities – Kabul, Kandahar, Mazar-e-Sharif, Herat, Jalalabad, and Pul-e-Khumri. Between April and June 2017, health care staff across these urban settings identified 31,247 presumptive TB patients who were then tested for pulmonary TB; 4,054 (13%) were diagnosed with TB (all forms) and 1,233 (4%) patients were bacteriologically confirmed TB. All patients were put on treatment. In Kandahar, Mazar-e-Sharif, Herat, Jalalabad and Pul-e-Khumri 2,034 TB cases were notified (272 cases or 13% were diagnosed by private sector health staff), reflecting an 8% increase in TB case notification this quarter, compared to the same quarter in 2016.

Contact investigation - In Kabul, all health facilities with TB services implement CI. A total of 474 index TB cases were investigated and 2,968 household members, including 402 children under the age of 5, were registered as contacts of index TB cases. All of these contacts were screened for TB signs and symptoms, with 490 presumptive TB and 58 (22%) bacteriologically confirmed and put on treatment, while all child contacts were put on Isoniazid Preventive Therapy (IPT). Contact investigation in Kandahar, Mazar-e-Sharif, Herat, Jalalabad and Pul-e-Khumri registered 2,895 household members of 610 index TB cases with 490 (17%) presumptive TB and 46 (9%) bacteriologically confirmed, along with 380 children under 5 who were started on IPT.

Vulnerable populations - 3,000 drug users and 1,000 persons diagnosed with mental health disorders were screened for TB. These screenings resulted in the diagnosis of 40 TB cases and one Rifampicin-resistant case.

Enhanced M&E - The CTB team worked with the NTP to develop and submit 22 abstracts for the 48th Union World Conference on TB and Lung Health in Mexico, October 2017. Of those submitted, 19 (86%) abstracts: eight oral and 11 poster presentations were accepted on topics ranging from the effectiveness of ACF among drug users in five cities; outcomes of screening persons with diabetes for TB in Afghanistan; and evaluating the effectiveness of TB care providers on treatment outcomes in Afghanistan. CTB Afghanistan also plans to present at two symposiums on the magnitude of TB among persons with diabetes in Afghanistan.

Laboratories - Three GeneXpert machines were installed in Kabul, Nengarhar and Kandahar, which particularly contributed to achievements in Kabul where more than 2,000 TB cases were notified this quarter and Urban DOTS implementation contributed to an 84% treatment success rate.

BANGLADESH

CTB-Bangladesh is led by MSH in close collaboration with KNCV. CTB is supporting the NSP 2020 targets: (1) Increase annual case detection of all forms of TB to 230,000 (from baseline of 184,507 in 2013); (2) Ensure universal access to DST; (3) Treat 100% of detected MDR-TB cases and achieve a TSR of at least 75% in detected MDR-TB cases; and (4) Decrease TB mortality from 51/100,000 to 40/100,000.

MDR-TB diagnosis and treatment - CTB supported the NTP in developing a strategy to initiate the STR, to create a scale-up plan and provided support in developing SOPs, training materials and updating existing recording formats including establishment of a pharmacovigilance mechanism. In terms of treatment, CTB supported the NTP in the enrollment of 84 DR-TB patients (56 male and 28 female) at NIDCH. NTP data shows an annual TSR of 73% for MDR-TB patients enrolled in 2013, which is much higher than the globally reported TSR of 52%.

Contact Investigation - CTB set up CI at an additional three outpatient departments for a total of six tertiary health care facilities five Dhaka and one in Sylhet. Between April and June 2017, 74,545 contacts were screened with 2,262 (3%) presumptive TB cases identified and physicians confirmed 1,170 (52%) for further investigation. Among the children tested, 57 (5%) child TB cases were identified and put on treatment compared to 14 child TB cases (out of 179 tested) that were identified between January and March 2017.

Re-initiation of FAST - Since March 2017, CTB has re-initiated and strengthened the implementation of FAST in six TB wards and six non-TB wards at NIDCH with updated SOPs and recording & reporting (R&R) formats for FAST, awareness-raising among hospital authorities, and orientations for related HCWs. In April-June the effectiveness of this strategy in finding hidden TB patients is already clear, 1,302 TB patients tested identified 163 (13%) with MTB+ results and 16 (1%) RR-TB cases. In the same period, FAST efforts also identified 608 patients with other lung diseases for testing of whom 26 (4%) had MTB and another 12 (2%) RR-TB.

M&E - CTB supported the improvement of data quality and timely submission through two ToT trainings on TB reporting forms newly integrated into the national DHIS2 system. Those trained have already facilitated 13 cascade trainings for more than 385 statisticians and statistical officers working at district-level.





BOTSWANA

CTB-Botswana led by KNCV, aims to assist the NTP in strengthening laboratory services and planning for novel intervention strategies by providing regular and routine support through long-term TA both at the NTP and the NRL.

Diagnostic algorithm - The NTP/MoH adopted GeneXpert as the initial diagnostic test for all presumptive TB cases and as of this quarter, the NTRL revised its diagnostic algorithm in accordingly.

GxAlert implementation - National rollout and implementation of GxAlert was completed in 29/33 GeneXpert sites, connecting GeneXpert devices via a secure network and allowing automatic real-time reporting of test results. However, the GxAlert server was non-functional from Jan–May 2017 due to routine maintenance and/or storm damage. With assistance of SystemOne, the server has been fixed and currently 17 out of 29 GeneXpert facilities are reporting to the server. To prevent similar problems from occurring in the future, GxAlert will have a back-up server, which will be housed at MoH.

NTRL workload testing - A CTB lab consultant reviewed the workload and testing practices at NTRL, comparing workload data over a 3-month period (Jan–Mar) for 2014 and 2017 to assess capacity. In 2014 the NTRL was fully functional and performed an average of 1,040 cultures per month. In 2017, the average number of cultures per month was 273 (26%). The consultant recommended that the in-country Lab long-term TA review current SOPs with the NTRL. Staff also need retraining on various elements of culture and DST work as staff were rotated and reassigned during the past two years of downtime.

Implementation of the combined TB and HIV survey - The protocol for the combined TB prevalence survey with 5th Botswana AIDS Impact survey (BAIS V) was reviewed by the national ethical review board. The national technical working group is currently addressing the comments and preparing the protocol for submission to the WHO Global Taskforce. The field implementation was set to kickoff in July. However, this was delayed because of the delay in the procurement of survey equipment, particularly mobile chest X-ray machines. The tender for the procurement of six containerized chest X-ray machines is approved by the ministerial tender committee of the MoH and they are expected to be delivered during the next quarter. A CTB supported KNCV epidemiologist and data management expert will conduct a TA mission during the next quarter and the piloting of the survey and other preparations are planned to be completed by the end of 2017.

New drugs and regimens - The introduction of ND&Rs is nearly complete with updated guidelines which should be signed off by MoH officials and printed by the end of Year 3.



BURMA

CTB-Burma led by FHI 360 and with KNCV as a collaborating partner prioritizes reaching key populations, strengthening the laboratory network, strengthening TB-IC, and helping the NTP in the analysis of and strategic planning for novel intervention strategies.

Advocacy, Communication, and Social Mobilization (ACSM) - Results from the 'Cover Your Cough' ACSM campaign have spurred CTB to plan for the launch of a population-level ACSM campaign using a multimedia approach and a focus on MDR-TB. After conducting a needs assessment and developing operational guidelines, CTB submitted a campaign strategy document to the NTP and IEC materials were produced in the quarter through a contracted media company. A TV spot, radio spot, and a documentary were all shot using former MDR-TB patients and a well-known celebrity, with the anticipated launch in mid-August.

Laboratory Management - Two trainings were supported in May 2017 for laboratory staff from the National Health Laboratory and key TB laboratories on introducing laboratory quality management systems where 28 staff were trained and a second training focusing on management and leadership for 20 laboratory managers and supervisors.

Finding the Missing Cases - CTB has been working to initiate activities funded through sub-awards to expand finding missing TB cases through both drug-vendor activities in Bago Region and community-based TB care activities in hard-to-reach areas, namely Northern Sagaing, Chin, and Kayah. Population Services International (PSI) trained 229 drug vendors in Bago Region, through which 162 presumptive TB patients were referred to the public health facilities for TB diagnosis, among these, 34 cases were notified, out of which, 15 found to be bacteriologically confirmed. Contracts for community-based TB care activities in Sagaing, Chin, and Kayah were also signed with four partners. In mid-May, a meeting was held between the NTP and CTB and its hard-to-reach area partners to present planned work for case finding and case holding in the above-mentioned geographic location. CTB then applied and received formal approval from the Ministry of Health and Sports, thus allowing all CTB's sub-grantees to work in close collaboration with NTP teams at different levels. This investment is not a onetime activity and CTB is developing an evaluation plan to assess and compare contributions of the partner's work towards NTP efforts.

New drugs and regimens - CTB supported the development and finalization of a national aDSM manual and helped establish a NCCA for the monitoring of adverse reactions to TB drugs.





DR CONGO

The Union is leading the CTB project in DR Congo while working closely with MSH (conducting TB/HIV activities in PEPFAR-supported provinces) and KNCV. The project focuses on increased TB case finding, expanded PMDT, integrated TB/HIV care, and increasing the capacity of the NTP, HCWs and community workers.

Diagnosis - CTB supported the expansion of GeneXpert testing through training of lab technicians, the provision of solar kits and improvements in the sputum transport system. As a result, CTB sponsored analysis of GeneXpert utilization (for presumptive TB cases) documented an increase in utilization from 16% to 34% this quarter. In addition, detection of multi-drug resistant TB (MDR-TB) cases notified increased from 54 in the second quarter to 81 cases in quarter three thereby exceeding the third quarter target. Ninety-six percent of those diagnosed started second line treatment within the same reporting quarter.

DR-TB Management - The expansion in the use of the STR as the standard regimen for RR-TB was achieved in the eight CTB-supported Provincial TB and leprosy Coordination Departments (CPLTs). Among the 81 RR-TB cases identified this quarter, 78 (96%) started treatment after the initial assessment, two died before starting the treatment and investigation is ongoing to locate the other individual.

Pre-XDR and XDR-TB Management - After a delivery delay/lead time of 11 months, BDQ was delivered to Kinshasa in April. As these patients are treated either by CEDA in Kinshasa or Lubumbashi, CTB is not directly involved in their care. However, CTB is an active part of biweekly DR-TB coordination meetings where cases are discussed in detail. In addition, equipment requested for patients management at CEDA was delivered through CTB emergency funding.

TB in Prisons - TB care and prevention in prisons was improved through ACF campaigns (using GeneXpert examination after symptom screening) in two prisons in South Kivu. Overall, the number of TB cases detected in prisons in the eight CPLTs increased from 20 in quarter to 86 this quarter. Among these 86 cases, 40 were detected in South Kivu (24 cases in Bukavu prison and 16 in Uvira prison). Following these campaigns, several infection control measures were also implemented, including the allocation of space for the isolation of prisoners with TB.

Find the Missing Cases Activities - ACF activities conducted by four local partners NGOs managed to identify 1,423 TB cases and found 14% (1,423/10,536) of all the TB cases notified in the eight CTB-supported CPLTs. 116,073 persons were sensitized, 10,783 presumptive TB patients were referred, among those 1,423 TB cases (all forms) were identified. Out of all the cases identified 1,100 were bacteriologically confirmed, 142 were clinically diagnosed and 181 were extra-pulmonary cases. In addition, CI by the same NGOs contributed to 1% (156/10,536) of TB cases notified. CI was conducted among 1,073 index cases, 6,330 contacts were visited, 1,665 presumptive TB cases (26%) were identified, among which 1,107 were tested and 156 TB cases (14%) were diagnosed (153 bacteriologically confirmed, two clinically confirmed and one extra-pulmonary TB case).



CAMBODIA

Led by FHI 360 and with KNCV and WHO as collaborating partners, CTB-Cambodia provides TA to the NTP to develop strategies for TB care and prevention in rural and urban settings with the primary goal to improve case detection and to close the “diagnosis gap” by targeting specific risk groups. The rural strategy focuses on comprehensive CB-DOTS, to include key populations such as children and the elderly. The urban strategy prioritizes the engagement of large hospitals, public-private mix and prisons. Based upon the USAID Cambodia decision, CTB-Cambodia will be implemented over the next two years, and will be closed at the end of Year 4.

Active Case Finding Among Elderly at Pagodas - During the reporting period, TB symptom screening was conducted in 106 pagodas, compared with the 82 pagodas that were planned. A total of 3,381 elderly people including monks and Ajas, were screened for TB symptoms, of which 52% (1,773/3,381) had at least one symptom suggestive of TB. Seventy-eight were identified with bacteriologically confirmed TB (4% of presumptive TB patients) and an additional 59 (3%) were identified with clinically confirmed TB.

Contact Investigation, Childhood TB and Management of Latent TB Infection - In this reporting period, 9,997 close contacts of smear positive index cases were screened for TB. Of the 1,140 child contacts identified, 864 (76%) contacts under the age of 5 were eligible for IPT. The families of 236 (27%) eligible children refused IPT, while 628 (73%) were enrolled on IPT. 756 children were referred to rural hospitals for clinical evaluation, history, physical examination and chest X-ray. Eighty (11%) of those referred were diagnosed with TB, and were started on treatment. 146 HC and 11 RH staff received coaching through supportive supervision.

PMDT and Contact Investigation - During this reporting period, Cambodia Health Committee (CHC) provided treatment and care for 181 DR-TB patients (106 male and 75 female). CTB also worked with HC and RH staff to identify presumed MDR-TB patients particularly retreatment TB cases. A total of 81 presumed MDR-TB patients were referred for testing. Finally, CHC conducted CI of 724 household members of 191 MDR-TB patients. Of those close contacts, 21 (3%) presumptive TB patients with symptoms were identified. Sputum samples were collected for Xpert and culture/drug susceptibility testing with one patient identified with active TB (culture and DST results pending).

Drug resistance survey - CTB provided support for the National Drug Resistance Survey – now in field data collection, with 419 confirmed TB patients enrolled - through trainings of survey recruiters and participants alike. In addition, CTB provided support to three laboratory sites for an international TB lab expert to build capacity in the quality and volume of TB culture and DR-testing required during survey implementation.





ETHIOPIA

CTB is led by KNCV in Ethiopia with WHO and MSH as close collaborating partners. The new 18-month (Apr 2016-Sept 2017) expanded CTB work plan touches upon every CTB technical area with the greatest emphasis on patient-centered care especially targeting MDR-TB, community TB, and TB/HIV services. Strengthening data quality and M&E is also a cornerstone of the work plan. The project is concentrating efforts at the regional level, in the Southern Nations and Nationalities (SNNPR) and Tigray regions as well as seven new regions. National-level TA is targeting only specific technical areas, while support for Urban TB activities is focused in Addis Ababa, Dire Dawa, and Harari.

Active case finding - ACF outside of health facilities continue to produce a better yield compared to the national notification rate. In this reporting quarter, ACF reached 87,200 people living in 60 congregate settings with 8% (6,722) identified with presumptive TB resulting in 261 TB patients (4% among presumptive cases). This prevalence rate of 299 per 100,000 is more than double the national notification rate. ACF activities were carried out in mining communities, prisons, holy water places and missionary charities.

TB among Key Populations - CTB supported activities took place in all CTB-supported geographic areas with highlights from the following three regions:

In the six mining areas of Oromiya region (Guji and Borena zones), sensitization and awareness raising education was followed by mass screening: 5,511 mining workers were screened, 869 (16%) presumptive patients identified, and a total of 113 (109 MTB drug susceptible [73 bacteriologically confirmed PTB, 26 clinically diagnosed PTB and 10 EPTB] and 4 RR cases) were diagnosed. The houses/tents of 386 residents in mining woredas were visited and 1,110 contacts were screened with 167 presumptive TB patients identified and 23 MTB cases diagnosed (16 bacteriologically confirmed PTB [one RR], 6 clinically diagnosed PTB and 1 EPTB), showing a similar high burden of bacteriological confirmed TB among the mining area residents (2,072 per 100,000). In addition, all inmates in ten prison facilities of Oromiya region were screened in collaboration with zonal and woreda health offices with 17,221 people screened and 42 TB cases diagnosed (42 bacteriologically confirmed PTB: 36 drug sensitive and 6 RR).

In Amhara region, mass TB screening was conducted in two universities (8,001), 27 prisons (24,037), and 12 holy water places (17,426) covering nearly 50,000 people. Inmates from 27 prison facilities (totaling 21,137 people) were screened and 770 presumptive cases were sent for Xpert test with a total of 16 TB cases diagnosed. Finally from holy water users 6 TB cases (5 bacteriologically confirmed PTB and 1 EPTB) were diagnosed from 13,262 screened.

In Addis Ababa and Dire Dawa, mass screening for 2,012 people took place in the three missionary charities and Mekedonia (where very poor and disabled people are helped and fed), 338 presumptive cases were identified and 16 PTB cases were diagnosed (including 1 RR case). This is an important effort as missionary charity sites in Addis Ababa, have high level of TB cases and tend to have less support as they lie outside the formal public health system.

Childhood TB - CTB is supporting the pathway from policy development to good clinical practices by piloting an integrated childhood TB care in model facilities of 30 health centers in Addis Ababa. After a considerable CTB effort and investment in translating the national childhood TB care roadmap into action since Sept 2016, (e.g., training, supportive supervision and mentorship of health care staff, availing desk references, job aids and recording tools) results of change are promising. Compared to the baseline, TB screening in the child health clinics increased from 28% to 96%. HCWs are able to identify presumptive TB patients, increasing the yield by six fold $n=3$ (0.06%) to 178 (0.33%). HCWs have initiated sample collection through nasogastric tube in young children who are identified as presumptive TB patients. A total of 54 nasogastric aspiration procedures were done and in the past two quarters, and 20 children were diagnosed with TB.

Treatment Support - CTB supported the needed capacity building of 64 healthcare workers working in all treatment initiating centers of the country to conduct routine nutritional assessment and counseling, establish an emergency resuscitation unit through availing necessary medical equipment and recruitment of a full time expert as well as the organization and provision of regular clinical mentoring, supportive supervision and catchment area meetings with cohort reviews. As a result of these efforts, the 24 month MDR-TB cohort treatment outcome trend has shown progress; in the Jul-Sept 2014 cohort of 155 MDR-TB patients put on SLD, their 24 month treatment outcome showed 75% TSR and 45% cure rate. The treatment outcomes improved to a TSR of 81% and cure rate of 70% for 128 MDR-TB patients in the cohort enrolled in Jan-Mar 2015.

Support to St. Peters TB specialized hospital - Through the procurement of maintenance tools and training for biomedical engineers, more than 40 machines and pieces of medical equipment at the hospital are again in working order.

INDIA

The Union is leading CTB efforts in India with close collaboration with KNCV, PATH and FIND. The project has been primarily contributing to TB care and prevention efforts in India through the Call to Action to End TB in India. This advocacy campaign aims to mobilize a wide range of stakeholders to demand and sustain high-level domestic commitment to end TB in India.

The other important components of the CTB-India project are addressing the gaps and limitations in childhood TB and providing universal access to HIV counseling and testing for TB patients diagnosed in the private sector.

Advocacy - The country showed high political will and commitment to end TB at the National TB-Free India Summit organized by USAID, The Global Fund, WHO, HPCA and The Union under Challenge TB. In addition to a letter of support from Prime Minister Modi and a speech from the Minister of Health & Family Welfare, TB visibility and awareness increased through 244 news media articles, commitments from 14 corporate partners and the presence of 11 MPs and 14 celebrities.

PMDT and PPM - A unit for PMDT with five PMDT consultants in-charge (DR-TB diagnostics, DR-TB pharmacovigilance, DR-TB M&E and two technical consultants) for overall PMDT management has been established at the Central TB Division, MoH & Family Welfare. In addition, expansion of a public-private

DR-TB model continues with GIS mapping and a survey of more than 1,300 providers and enrollment of 80 providers for an early diagnosis of DR-TB in the private sector initiative. The results are already evident, as 131 DR-TB patients diagnosed in the private sector were linked to public health DR-TB centers for treatment initiation.

Bedaquiline access - CTB is supporting 24 out of the total 135 DR-TB centers in the country serving 538 BDQ eligible patients by providing TA through the existing medical staff at the six initial sites, the provision of ECG machines at the remaining sites and their linked districts, and access to ancillary laboratory tests for pre-treatment evaluation and treatment monitoring of eligible TB cases.

Comprehensive, high quality diagnostics (FIND) - A total of 3,641 presumptive pediatric TB and DR-TB patients were tested. Of the total tested, 152 (4%) cases were diagnosed as Xpert-positive under the project with 14 (9%) patients being diagnosed with RR-TB. More than 850 providers were approached through CMEs and one-to-one meetings in the quarter. In line with Year 3 objectives, focus remained on detailed documentation of project data and in addition, plans are in place to extend the project to Indore.

MDR-TB PATIENT NEHA SURVE, INDIA - PHOTO: PATH





INDONESIA

CTB-Indonesia is led by KNCV and implemented in collaboration with ATS, FHI 360, and WHO. In Year 3, CTB will focus on increasing TB case notifications and improving DOTS implementation by public and private sector providers supported by effective surveillance systems. CTB will strengthen the capacity for effective utilization of the expanded Xpert network, and the quality of services during scaling-up and decentralization of PMDT and home based MDR-TB treatment and care alongside with application of the patient triage approach using the shorter treatment regimen.

KYRGYZSTAN

CTB-Kyrgyzstan is led by KNCV. This project is working on strengthening patient-centered care and treatment with major focus on the introduction/implementation of ND&R.

Implementation of ND&R - Since February 2017, CTB has worked with the NTP to guide a careful patient-orientated approach to ND&R including case management consultants, clinicians, and invited psychologists. In total, 77 out of 82 patients (94%) receiving ITR with BDQ continued treatment by the end of the quarter with only one person lost to follow-up. In addition, of the first 28 patients enrolled on BDQ treatment, 19 (68%) achieved smear conversion, 16 (57%) reached culture conversion and 17 (61%) were discharged for outpatient treatment. Finally, three out of the five most severe cases that started with the first group had significantly improved.

CTB ensured that the Central Consilium applied Patient Triage Application to include all eligible patients on ND&R. In August 2017 CTB will analyze the 6-months enrollment and interim treatment results and present them during a partners meeting and regional conference on TB in September 2017.

Improved aDSM - CTB provided regular monitoring of treatment safety and provided regular on-the-job training and mentoring in pilot sites. CTB support resulted in 41 adverse event reports submitted over a five month period in 2017 whereas there were no forms were submitted in 2016. CTB supported submission of serious adverse event (SAE) forms to Global Drug Facility (GDF) for two patients who died during the treatment with ITR containing BDQ as per the agreement between NTP and GDF. Finally, CTB led the process of the development of new AE card for TB and SOPs on AEs which were discussed in regular monthly meeting on pharmacovigilance (PV).

Knowledge Exchange - CTB abstract "Kyrgyzstan's approach to tackle DR-TB through early warning system for expedited uptake of new medicines" was accepted for the 48th Union Conference. In addition, Dr. Kadyrov, NTP Director, participated in Wolfheze Workshop for sharing progress of implementation of the ND&R in line with the WHO European Region TB Action Plan 2016-2020 and End TB Strategy. In this quarter, CTB also supported six NTP staff for a study-tour to Georgia for an exchange on effective patient adherence strategies, ACF approaches and patient support.

Xpert Expansion and Connectivity - The CTB Lab team facilitated Xpert expansion, drafting the installation schedule, developing material for workshops/trainings and providing technical assistance during trainings. As of June 2017, a total of 504 Xpert machines were installed nationwide through the GF grant. In CTB provinces, a total of 792 health personnel at 198 Xpert sites were trained and 91% of machines were installed and are operational. CTB also piloted the introduction of Xpert connectivity, following three different approaches:

1. Implementation of GxAlert with router offered by SystemOne (vendor), where internet, router and system maintenance are provided for three years (full package);
2. Implementation of GxAlert with router from a local vendor, where internet and system maintenance is managed by the NTP.
3. Semi-offline and online system developed locally, called Xpertis (Xpert Information System), the system is pulling data from each lab, then generalized and uploaded, further to be linked with ETB Manager.

SOPs for Monthly Interim Cohort Analysis (MICA) were developed and finalized. MICA was introduced and is now applied in all five municipalities of Jakarta and also in Medan city. During the implementation, the ex-patients groups (PETA in Jakarta, PESAT in Medan) were actively involved; they collaborate with the DHO and Puskesmas in supporting patients who have missed appointments to prevent them from becoming lost to follow-up and to ensure that all identified RR-TB patients are enrolled on DR-TB treatment.

PMDT - CTB facilitated self-assessments in six referral hospitals in CTB supported provinces using the CTB-Indonesia benchmarking tool for PMDT. ATS provided TA for self-assessments in three of these sites. Improvement plans were developed for each site, with a focus on quality MDR care and case management, and plans for distance mentoring developed.

Patient Support - Following the establishment of PETIR (patient support group) at the end of the second quarter, a new patient group was formed in Papua called Cendrawasih TB Papua, expected to assist in improving treatment initiation rates and adherence.

Key Populations - In collaboration with LINKAGES, HIV-CSOs were trained on the identification and referral of people with presumptive TB among the people they work with (HIV-key populations). Health facilities for referral were chosen and strengthened by CSOs to ensure the referral mechanism works in five Jakarta municipalities and one city in Papua.





MALAWI

KNCV is the sole implementer in Malawi. The project's primary focus is on increasing case detection through intensified case-finding, active case-finding (e.g., mobile teams using digital chest X-ray/CAD-4TB screening, followed by Xpert examination), and CI. Another key focus of the project is on strengthening the NTP leadership at the central, zonal and district levels. In Year 3, CTB will be implemented at the national level, in all five zones, and in 15 scale-up districts within these zones.

Laboratory - With support from CTB, the upgrade of the NTRL is final and officially handed over to the NTP in April, after which TB culture and DST services resumed. A follow-up lab assessment identified a short list of final improvements, all of which were addressed by June.

Key populations - Mass TB screening took place in two prisons – Maua (total population 2,962) and Chichiri (total population 1,981). The screening was significantly aided by the use of mobile chest X-ray. In Maua, more than 68 TB cases were identified (2% of those screened) while in Chichiri, 66 cases were identified (3% of those screened) representing a 60% increase over screening efforts in prior quarters. All the identified TB patients were enrolled on treatment.

TB Case Notification of Adults and Children – Case notification in Malawi has increased from 2.9% in Oct-Dec 2016 (out of 3,529 cases) to 3.4% in Jan-Mar 2017 (3,656 cases). As compared to previous quarters, this is the highest number ever notified in the CTB districts since CTB started implementation in Oct 2015. This is due in part to NTP revised registers and reporting forms to align with the WHO definitions and CTB supported training of health care workers from district and facility levels. There is also a notable increase of 32% in the number of TB cases diagnosed amongst children from Oct-Dec 2016 (323 cases) to Jan-Mar 2017 (427 cases) quarters in CTB districts. This increase could be attributed to ten trainings on childhood TB diagnosis and contact investigation that CTB and CHAI supported the NTP to conduct in the previous quarters. In addition from Oct 2016 to Mar 2017, the number of children initiated on IPT increased by 8% (586 to 632).

Improved Treatment Success Rate - The DR-TB TSR is fluctuating between 82% and 79% due to poor documentation of outcomes in the registers/treatment cards. This is especially the case for TB patients who are transferred to another facility to complete treatment and because of poor follow-up/communication, these TB cases remain un-evaluated in the transferring-facility register. Some facilities also have a relatively high death rate, which contributes to the low TSR (a preliminary analysis was made and in four out of the ten districts with a high death rate, the HIV/TB co-infection rate is higher than the national average of 53%). From Year 4, CTB plans to conduct death audits in order to assess and monitor the death rates in addition to the continued mentorship and supervision support currently provided.

MOZAMBIQUE

CTB-Mozambique is led by FHI 360 and has KNCV as the sole collaborating partner. In Year 3, CTB is working closely with the NTP in the following technical areas: improving case detection (community engagement, quality assured lab network expansion), improving quality of care for all categories of patients (TB, TB/HIV, MDR-TB, and childhood TB), strengthening the TB surveillance system with a view to have an electronic case-based TB register in place that is interoperable with other health information systems (MoH and HIV), and conducting the first TB prevalence survey.

TB Case Notification – In all 64 districts, 3,550 cases of TB (all forms) were diagnosed through community based DOTS (CB DOTS). This brings the total number of cases diagnosed through CB DOTS in Year 3 to 7,772, a contribution of 26% (7,772/29,731) of the total TB cases notifications from October 2016 to June 2017 across all of CTB's provinces. This progress is a result of a strengthened case finding cascade approach. This quarter, community house-by-house searches for TB cases contributed to 30% of TB cases, while monthly cough day activities yielded 18%, FAST 15%, prison screenings 12%, and CI 3% of cases found.

CTB initiated a different approach for systematic CI with technical support from ATS to reinforce the community health worker's role and ensure that contacts of TB index cases are successfully screened for TB. Eight health facilities in Beira city in Sofala province were selected to implement systematic CI and training provided to 29 volunteers/activists, and 17 health care workers.

Strengthening MDR-TB diagnosis and treatment - CTB supported the implementation of SL-LPA through training of the supranational reference laboratory, purchase of SL-LPA kits and Genotype CM as well as a refresher training provided at no-cost by the Hain company. Validation samples using SL-LPA are now being compared to the same samples processed at the CISM-Manhica Health Research Center with plans for SL-LPA processing starting in July. In addition progress continues for an electronic patient based register using the DHIS2 tracker with CTB supporting from the initial design phase to finalization. Training of NTP and CTB staff (to provide support) is now complete with full roll-out scheduled for August in the northern and southern provinces.

The notification of MDR-TB in CTB provinces increased from 180 to 385 cases – a 214% increase from 2015 to 2016. Comparing the period Apr-Jun 2016 and Apr-Jun 2017, there was a 17% increase in the number of cases (from 66 to 77), a result of continued CTB support to NTP through supervision and on-the-job training. In addition CTB clinical officers continue working with clinic staff in health facilities to support the sample transport system to ensure that all MDR-TB presumptive patients are tested for GeneXpert and get their results quickly.





NAMIBIA

CTB-Namibia is led by KNCV, and in alignment with PEPFAR Namibia, continues to work with the Namibian government, civil society and private sector to expand access to TB/HIV services. In Year 3, CTB is supporting activities that increase HIV testing services among TB patients and contacts, enabling timely initiation of ART in TB platforms, and improving retention and adherence to TB treatment and ART among co-infected patients.

Global Fund Funding Request - CTB supported and participated in the GF grant application by providing TA through resident staff and STTA. Technical support focused on TB/HIV, M&E modules and overall write-up of the TB component. The funding application/request with a combined TB/HIV allocation funding of USD 34,736,293 was submitted within the required timeline. The country has received notification that the application will proceed to grant-making.

TB Prevalence Survey - Namibia is currently preparing its first ever National Tuberculosis Prevalence Survey with fieldwork due to commence in July 2017. KNCV staff participated in survey preparation, including drafting SOPs and training materials, serving in the technical working group and technical subgroups, as well as providing leadership in the survey through staff seconded to the NTLP at the request of the MoHSS. KNCV will provide STTA to support the survey pilot and survey monitoring in quarter 4.

TB/HIV integration - CTB supported areas are focusing on quality improvement of TB/HIV integration elements that are now part of quarterly supportive supervision and mentoring visits. The focus will now be on targeted continuous quality improvement (CQI) training at four high burden facilities which all identified IPT initiation and recording as their CQI project.

NIGERIA

KNCV is currently the lead and sole implementer in Nigeria. In Year 3, the project covers the following technical areas: patient-centered care and treatment, comprehensive high quality diagnostics, enabling environment, political commitment and leadership as well as quality data, surveillance and M&E. CTB is working towards universal access to TB diagnosis and treatment in 14 priority states, focusing heavily on increasing case notification in a country with an estimated case detection of only 15%.

Case Notification - Results indicate that 81% (26,618) of the TB case notification target (32,717) has been achieved. As a result of TA activities, childhood TB was identified in 11% of presumptive childhood TB patients. CTB also enhanced activities at the community level initiating community outreach activities across nine CTB supported states (excluding Bauchi, Enugu, Kano, Katsina and Niger States). The focus of the outreach activities is to create awareness on TB and TB services. The results of 263 outreach activities show that 35% of individuals screened were identified with presumed TB of which nearly all were tested and 975 (4%) MTB cases were identified.

Contact Investigation - The implementation of CI continues in CTB-supported states with 7,493 TB index patients; homes visited to date with an average of four contacts identified per person. More than 86% of these close contacts (25,830) were actually screened with 6,103 (24%) presumptive TB cases identified and 97% (5,932) tested. As a result, 819 TB cases were diagnosed (14%).

MDR-TB Treatment Enrollment - CTB continued to support the enrollment of MDR-TB cases detected into care. A total of 169 MDR-TB patients were enrolled into care during the quarter. In Year 3 a total of 521 MDR-TB cases have so far been enrolled across the 12 states (with exception of Ogun and Nasarawa which are supported by the GF), which is 26% of the target. Efforts to accelerate achievement of planned targets include strengthening specimen transportation to GeneXpert sites for all presumptive MDR-TB patients and ensuring periodic update of the e-TB manager for those enrolled on treatment.

e-TB Manager - Capacity building on e-TB manager continues with MSH providing supportive supervision on quality and timely data entry, with regular analysis of the proportion of cases entered into e-TB manager as compared to paper based records. Three-hundred and seventy computer tablets were procured through USAID for high burden facilities. Analysis of data entry in the e-TB Manager in the nine CTB supported states in quarter 1 showed that 5,632 (62%) TB cases of the total 9,090 TB cases (NTP official paper report for nine states) were notified and entered into e-TB Manager. The average reporting rate is 57%, although this varied between states from 17% (Ondo) to 78% (Niger).





TAJIKISTAN

CTB-Tajikistan is implemented by KNCV. In Year 3, CTB-Tajikistan continues working to improve quality of care for patients with M(XDR)-TB by building the NTP's capacity to manage and implement ND&R. CTB is also building the NTP's drug management capacity and support the implementation of an early warning system (QuanTB) for all supply chain levels.

Sample Transportation - A sample transportation system was established in all seven project sites including transportation from PHC facilities to district TB centers and then to the National Public Health Laboratory (NPHL) and the National Reference Laboratory (NRL). During the reported quarter in total 1,603 samples were delivered to the NPHL for Xpert MTB/Rif and SL-LPA testing. Two-hundred and forty-six TB cases were detected, including 62 RR-TB cases. With the improved transportation system, the case detection increased by 30% in comparison with quarter 2 data (189 in quarter vs. 246 in quarter 3). Despite the number of samples being lower than in the previous quarter, the detected cases are higher, that is due to a better selection of presumptive TB patients by trained TB and PHC specialists.

Laboratory - CTB supported the NTP in implementation of line probe assay (LPA) for detection of drug resistance to second line drugs (SLD). CTB procured five kits to cover interim gaps in the country's supply, developed training materials/SOPs and facilitated training for 5 National Public Health Laboratory (NHPL) National Reference Laboratory (NRL, Machiton hospital) specialists. Post-training, a total 156 samples were tested in both laboratories with 16 pre- and five XDR-TB cases identified.

DR-TB Treatment and Safety Monitoring - A total of 76 MDR-TB patients have been enrolled on new treatment regimens: 35 on treatment regimens with BDQ and 41 on the shorter MDR-TB regimen. Interim treatment outcomes' review of the first patients' cohort enrolled on treatment regimens with BDQ showed that 83% (10/12) of patients achieved smear and culture conversion within six months. As for the shorter regimen, 32% (6/19) of patients in the first and second cohorts with smear and culture conversions switched to the continuation phase.

To monitor the treatment safety biochemical tests of patients on new regimens is carried out on a monthly basis. In addition, on-the-job support on clinical management was provided during supervision visits to inpatient treatment facilities as well as outpatient facilities in the project sites. In quarter 3, three adverse events were recorded in the Machiton Hospital for the first time for patients on individual regimen with BDQ: one serious adverse event (death) and two AEs of special interest. The yellow cards were immediately submitted to the PV department of the Drug Regulatory Agency and to the TB consilium. A yellow card report was made to the GDF and the Causality Assessment Committee concluded they were likely not linked to the drug.

Patient Support - One of the main things which has a negative impact on patients and treatment is the lack of food in Machiton hospital where most of the patients start treatment regimens containing BDQ. Although CTB provided support for treatment, a lack of food hospital remains a key challenge. Most patients prefer ambulatory treatment and refuse to continue treatment after 2 or 3 weeks of hospitalization. In addition, a small comparison showed better outcomes among ambulatory patients rather than inpatients. The issue was addressed to the NTP, the GF's NFM PR (Project HOPE) and other partners during several meetings. CTB together with the NTP and partners will continue negotiations with the GF to restart the hot food project in the hospital.

SOUTH SUDAN

CTB-South Sudan is led by MSH and has KNCV as the sole collaborating partner. In Year 3, CTB continues to focus on increasing case notification and improving treatment outcomes by supporting the expansion of quality and sustainable TB care services in three states, which have high populations and a high burden of TB and HIV. In addition, CTB is supporting the provision of TB services to the displaced population and the expansion of quality-assured TB diagnostic services beyond the three states. CTB-South Sudan will be closed at the end of September 2017.

ND&R - BDQ was introduced in April 2017 and as of June 2017, a total of 12 RR-TB patients in the CTB intervention area were enrolled in treatment on an ambulatory basis. CTB continued to support the transportation of samples from TB medical units within Juba to the GeneXpert site within the local CTRL. This quarter, the total number of samples transported increased from 99 to 276 compared to the last quarter. A total of 122 MTB cases were detected during the quarter of which 15 (12%) were RR-TB.

External Quality Assessment - CTB supported the training of four lab technicians and four TB focal persons on the randomization of slides for external quality assurance (EQA). Out of 78 microscopy sites, 48 (62%) participated in the EQA. CTB supported sites demonstrated 100% adequate performance in EQA for smear microscopy; a total of 4,175 smears were examined with an average smear positivity rate of 29%.

Provision of Services to Internally Displaced Population - Through CTB support, quality TB services are more accessible to the displaced population in the Juba Protection of Civilians (PoC) site and Mingkaman Internally Displaced People (IDP) camp. Between October 2014-June 2017, 433 TB cases were notified in Juba and 411 TB cases were notified in Mingkaman. This represents a notification rate of 456 and 411 per 100,000 populations in Juba PoC and Mingkaman IDP (estimated population of 95,000 in Juba PoC, and 100,000 in Mingkaman IDP).

Contact Investigation - CTB continued to support CI in two health facilities in Juba (Munuki PHCC and Kator PHCC). During April to June 2017, the houses of 253 index cases were visited and 1,900 TB patient household members were registered, among which 90% (1,717/1,900) were screened for active TB. Fifty-six contacts were found with presumptive TB symptoms and were referred to health facilities for diagnosis, which resulted in 25 (45%) bacteriologically confirmed TB cases. All TB patients were linked to treatment centers and initiated on treatment.



TANZANIA

Led by KNCV, with PATH and ATS as collaborating partners, CTB-Tanzania is focused on all CTB technical areas apart from the management of LTBI and drug & commodity management systems. The project is implemented in the seven regions of Arusha, Dar es Salaam, Geita, Kilimanjaro, Mwanza, Pwani, and Zanzibar.

Contact investigation - Following the strengthening linkage of community TB care interventions with facilities CTB Tanzania has noted positive trends in CI by volunteers and CBOs: 204 (7%) TB cases were diagnosed out of 3,146 individuals screened in comparison to 123 (6%) out of 2,113 in quarter 2. Out of those found without active TB symptoms 76 and 216 respectively were referred to health facilities to be assessed for TB preventive therapy. A similar trend was observed with engaged CBOs whereby 179 (7%) TB cases were diagnosed out of 2,429 screened in the third quarter compared to 83 (4%) out of 1,873 in the second quarter.

TB/HIV - TB/HIV care and treatment indicators continue to improve with 99% (6,255/6,278) of TB patients tested for HIV and a similar proportion (99% - 1,872/1,884) registered for care and initiated on ART (98% - 1,839/1,884).

ND&R - The implementation plan for the introduction of ND&R was reviewed by an external consultant during the quarter. The major recommendations were to: 1. Finalize and print the supporting documents; 2. Develop a pharmacovigilance (PV)/aDSM plan; 3. Include presumed MDR-TB patients' sputum specimen transportation to CTRL in Dar es Salaam where the introduction of ND&R will start; 4. Introduce rapid SL-DST in the CTRL and Mbeya and validate use; 5. Scale-up rapid SL-DST to Dodoma, Pemba and Mwanza by next year; 6. NTLP to sub-contract public or private labs in the regions to provide services or provide vouchers which can be refunded by NTLP to improve patient monitoring and improvement of access to audiometry and ECG tests and ECG machines.

The review of the DR-TB guidelines was finalized as was the pharmacovigilance plan. Audiometry and ECG machines have been procured, and more are anticipated through the current GF grant. TA was provided on the use of LPA to Kibong'oto Infectious Disease Hospital (KIDH), along with machine calibration, procurement of reagents, and training of laboratory staff on performing both first- and second-line DST using LPA.

PMDT decentralization - Decentralization of DR-TB services expanded to five more sites with staff being mentored by experienced staff from KIDH, making a total of 26 sites providing PMDT services in the country. In quarter 3 20/38 (53%) patients initiated DR-TB treatment in decentralized sites in comparison to 25/45 (55%) in the previous quarter. A total of 97 DOT nurses and district TB and leprosy coordinators provide PMDT services to 153 DR-TB patients and are supervised in 15 regions. In anticipation of the introduction of ND&R, 33 staff from existing PMDT sites were trained.

Healthcare Worker Screening - TB screening among health care workers continued in all regions and included Zanzibar for the first time. Out of 4,530 health care workers screened, 94 were presumptive patients among whom seven were diagnosed with TB (7.4% of presumptive cases). This is a prevalence of 154/100,000, in a country where the notification rate was 117/100,000 in 2015. Continuous sensitization together with the revised TB in the workplace policy that emphasizes on testing by GeneXpert is expected to result in better yields.

UKRAINE

PATH is the lead partner in Ukraine, and works closely with KNCV. In Year 3, CTB-Ukraine continues to support the NTP by supporting more oblast TB programs to expand and improve a model for a patient-centered approach to MDR-TB care, based on ambulatory treatment and the quality improvement of MDR-TB care and prevention services. CTB is also building the NTP's capacity to manage and implement ND&R.

ND&R and aDSM - As ND&Rs are not included in the national programmatic guidelines, there is no permission to use them in routine services. The CTB project developed an agreement with the National TB Institute, which has a special status under the National Academy of Medical Science and can use unregistered drugs, to enroll 200 patients from three project oblasts on treatment with BDQ. Two hundred BDQ courses were delivered to the country in June 2017, and patients will be enrolled starting next quarter. CTB conducted all preliminary trainings for health care workers and has selected the first patients to be reviewed by the consultative team for treatment enrollment.

To improve the monitoring and prevention of adverse reactions (ADRs) among patients being treated for MDR-TB, consultant Dr. Tamuna Gabunia visited Ukraine to discuss the active aDSM concept, especially in relation to the NDR introduction. She has also conducted training for national partners (CPH, National TB Institute, State Expert Center) on aDSM. As a result, participants agreed to use a new (just being pretested) national electronic system called PAIS for active pharmacovigilance of the pilot project of BDQ introduction at the National TB Institute. Additional consultations on strengthening the aDSM part in PAIS took place in June 2017. The National TB Institute, as a BDQ pilot site, will start to use aDSM from the beginning of the next quarter in cooperation with the State Expert Center and CTB.

Patient support - CTB Ukraine through PATH continues to support local NGOs and oblast branches of the URCS with the provision of medical, social, and psychological support for MDR-TB patients during the ambulatory phase of treatment. While the MDR-TB treatment success rate for Ukraine is slowly increasing from 2012-2014 (40%, 39%, and 47%, respectively), a significant and stable increase in treatment outcomes (39%, 58% and 59%, respectively) is observed in Mykolaivska oblast during the CTB project implementation. The Mykolaivska oblast has the best treatment outcomes rates out of all the regions in Ukraine.

TB-HIV Integration - CTB's TA is developing a sustainable approach to building and maintaining TB and TB/HIV co-infection technical and management capacity at national and oblast levels. To improve early detection of TB/HIV and effective management of TB among people living with HIV (PLHIV) the training curriculum for supervisors on HIV counseling and testing was updated, and supervision algorithms and tools for HIV counseling and testing developed. Three supervision visits to TB facilities for HIV counseling and testing were conducted with recommendations to including in-depth analysis of the mortality of patients with TB/HIV, efficiency in using Xpert MTB/RIF for TB diagnosis, coverage of antiretroviral therapy for TB/HIV patients, and TB detection and diagnosis among PLHIV.

Laboratory Strengthening - CTB provided TA and recommendations to the NTP on revision of the "Strategy of TB Laboratories in Ukraine 2017-2021." At the regional level, safety cabinets in Level 2 and Level 3 laboratories in project oblasts are being validated; by the end of the reporting period, 80% of safety cabinets were validated according to plan.



UZBEKISTAN

Led by WHO, and with KNCV as the sole collaborating partner, CTB-Uzbekistan is aligned with the Uzbekistan NSP 2016-2020 and the USG TB Strategy. The goal of the project is to improve patient-centered quality TB services, building local capacity and the utilization of innovations and new technologies.

Global Fund - A concept note and the Uzbekistan country proposal (a continuation request) for the coming Global Fund grant (2018-2020) was developed with CTB support. It is supported by the GF Secretariat for grant making in June 2017.

Jizzakh oblast assessment - A CTB multidisciplinary team performed an initial assessment of the oblast TB program to identify TA needs and recommended activities for improvement of PMDT, including the implementation of rapid TB diagnostics (Xpert MTB/Rif, second-line LPA), and ND&R. A two-year CTB concept and budget was developed with the aim of improving the quality of diagnosis, care and treatment in the Jizzakh oblast.

Supportive Supervision - A round of supervision visits to four CTB pilot regions was held in May and June 2017 as part of the quarterly national monitoring of TB services. Monitoring teams evaluated MDR-TB case finding and treatment strategies, administration and follow-up as well as the plan for further capacity building on MDR-TB case management. Key recommendations were: (1) to change the MDR-TB case detection strategy, ensuring drug susceptibility tests (DST) for all TB patients who start TB treatment; (2) use rapid molecular testing for patients with high MDR-TB risks (all smear positive patients, all retreatment patients, smear negative patients at risk for MDR-TB, HIV positive patients, and children) and; (3) to strengthen supportive supervision from Central level to ensure that PMDT management is accurate.

In addition NRL staff visited Xpert MTB/RIF sites, checked the readiness of local lab network to ensure effective sputum transportation routes and to reduce diagnostic and treatment delay once the machines have arrived and are installed. One of the common recommendations given was that local TB specialists should be additionally trained in DR-TB treatment regimen prescription and in side-effects management. This recommendation will be addressed by CTB in its pilot regions in July-August 2017.

TB Infection Control (TB-IC) - A CTB team joined by MoH staff, assessed the implementation of the TB-IC plans at the regional TB dispensaries in Syrdarya and Jizzakh regions, TB hospital in Pakhtakor city and PHC facilities. In some facilities, the TB-IC implementation had never been assessed before, so the team made specific recommendations for each facility on improving IC. The immediate outcomes were that natural ventilation was used more often, patients were separated more effectively, a proper space was designated for the staff room, and more entrances and exits were opened.

Knowledge Exchange - CTB supported the NTP in attending the international TB expert platform and partnerships to exchange the good practices on TB and TB/HIV prevention, control and care. In May 2017 MoH representatives attended the Joint ECDC and WHO TB Surveillance Network meeting and Wolfheze workshop in the Netherlands. Dr. Sharipov Farrukh, newly appointed chief of the Treatment and Prophylaxis department, under the MoH presented a poster on "Achievements, challenges and way forward in TB control in Uzbekistan". The Uzbekistan NTP discussed with partner NTPs the ways of achieving the "End TB strategy" and they committed to flag issues with the Minister of Health and further push the TB agenda in the country.

VIETNAM

CTB-Vietnam is led by KNCV and works closely with WHO as a collaborating partner. The overall strategy of CTB in Vietnam is to develop, pilot and evaluate TB care and prevention innovations that are planned under the NSP (2015-2020), in close collaboration with the NTP, the USAID mission and partners. The project works in all CTB technical areas with the exception of enabling environment, targeted screening for active TB, and drug & commodity management systems.

Key populations - In collaboration with the An Giang Provincial Preventive Medical Center, CTB conducted a screening of individuals attending the daily Methadone Maintenance Treatment (MMT) clinics in three remote - border areas districts. Screening included chest X-ray, sputum smear examination and a GeneXpert test. To date 509 people were screened for TB of which 69 (14%) had abnormalities suggestive of TB on their chest X-rays, eight patients (1,572/100,000 prevalence in people attending MMTs) had bacteriological confirmation for TB (five sputum smear positive and three Xpert MTB+). There were no RR positive Xpert results. All eight bacteriological confirmed TB cases were registered and put on TB treatment. The 69 patients with abnormalities on their chest X-ray film will be further assessed according NTP guidelines for sputum smear negative or extra-pulmonary TB.

TB/HIV Service Integration - TA was provided to the NTP and the Vietnam Administration of HIV/AIDS Control (VAAC) in the continued development of two models for patient-centered comprehensive joint TB/HIV service provision in two PEPFAR priority provinces of Dien Bien, Nghe An. CTB provided technical and financial support for the assessment and implementation of the joint TB/HIV service delivery model in four districts in Nghe An and ten districts in Dien Bien. In the Ho Chi Minh City (HCMC) project areas the project is also building capacity and monitoring the implementation of the NTP's Intensified Case-finding approach in co-infected patients. During the quarter the following trainings took place:

- Training of TB staff on HIV testing counseling for TB patients (PICT);
- Training of TB and HIV staff on accelerating the uptake of Xpert MTB/RIF particularly for PLHIV, strengthening transportation of sputum samples, diagnosis chain analysis and patient diagnosis using the molecular tests (GeneXpert and SL-LPA).

National TB Prevalence Survey - CTB currently provides TA to the NTP in the development and implementation of the second National TB Prevalence Survey (TBPS). The second prevalence survey will provide essential information for developing the Vietnam TB elimination strategy and estimating funding needs for interventions. As Vietnam is aiming to be one of the first Asian countries to go into the TB elimination phase, documenting the Vietnamese experience will be an important contribution to the global elimination effort.





ZAMBIA

FHI 360 is the lead partner in Zambia, working closely with KNCV. The Year 3 workplan, which was approved in February 2017, prioritizes improving access to and quality of diagnostics, improving patient-centered care and treatment as well as targeted screening for active TB, infection control, and M&E/surveillance.

Global Fund - As a member of the Task Technical Team (TTT) on the development of 2018 – 2020 GF TB/HIV joint proposal Concept Note, the Director of CTB participated in the development of the application. The CTB Director also participated in the WHO organized self and peer review assessment that was held in Nairobi, Kenya at the beginning of May.

Laboratory Assessment - CTB in collaboration with the MoH, the NTP, and the Ministry of Works and Supplies at provincial levels completed assessments of the three TB reference laboratories, Tropical Diseases Research Centre (TDRC), NTRL and University Teaching Hospital (UTH), and all the provincial hospitals. Drawings and Bills Of Quantities for renovations of University Teaching Hospital (UTH) MDR and NTRL were completed by the consultancy firm engaged by CTB and procurement processes for contractual works are to begin next quarter.

Laboratory - The project supported the NTP to revise the National GeneXpert Implementation Plan including guidelines, to meet international recommendations on making GeneXpert the first line test for all presumptive TB patients. In addition, CTB supported the revision of the national TB treatment guidelines and the diagnostic algorithm to include internationally recommended best practices. The revisions include ND&Rs that will soon be introduced in Zambia.

To enhance and fast track scale-up of Xpert implementation, CTB supported an Xpert trainer of trainers (ToT) workshop for clinicians and laboratory staff from the six CTB target provinces. Apart from producing provincial trainers, the workshop developed flowcharts to aid lab staff in equipment maintenance and troubleshooting in case of equipment failure.

CTB is supporting the introduction of a countrywide Xpert diagnostic connectivity platform which will contribute to improved patient care, by facilitating the rapid communication of test results to clinicians and also by monitoring the performance of the GeneXpert network. A landscape assessment in preparation for Xpert diagnostic connectivity was conducted LPA equipment was procured and installed at UTH TB laboratory.

ZIMBABWE

The Union is leading the project in Zimbabwe with collaboration from IRD, KNCV, and WHO. The Year 3 work plan prioritizes: improving access to and quality of diagnostics, increasing case finding, integrated TB/HIV care, PMDT, childhood TB, and M&E/surveillance.

TB/HIV Integration - A data review meeting was conducted to assess the performance of integrated TB/HIV care (ITHC) sites supported by CTB. It focused on the period from October 2016 to March 2017 when 1,934 TB cases were notified out of whom 1,929 (99.7%) had an HIV test recorded. The HIV prevalence among TB patients of 72% (1,388/1,929) was higher than the national rate for the same period at 64%. Both Co-trimoxazole Preventive Therapy (CPT) and ART coverage among HIV positive TB patients were at 93%. Nationally, ART and CPT coverage for the same period were 83% and 85% respectively.

Active Case Finding using chest X-ray - CTB is working in collaboration with the GF on ACF in the community using mobile X-ray trucks. This intervention is implemented through a sub-award by a local partner engaged in Year 3. Campaigns started in March 2017 and up to the end of June 2017, a total of 22,008 persons were screened for active TB, among whom 8,861 (40%) were presumed to have TB disease. A total 6,846 (77%) had specimens collected for either direct smear microscopy or GeneXpert if they were HIV positive or had a risk of DR-TB. Of these, 6,756 (99%) received results. The number of patients diagnosed with TB and initiated on treatment was 448 among whom 62 (14%) were bacteriologically confirmed TB and three with DR-TB.

Drug Resistance Survey (DRS) - The national TB-DRS was conducted through CTB support. During the reporting period, the survey data were validated, cleaned and analyzed. This was followed up by a multi-country workshop for further data analysis in Geneva from May 15 – 19, 2017. The results showed that the prevalence of rifampicin resistance among new and re-treatment cases was 4.6% (95% CI 3.0 – 6.2) and 14.2% (95% CI 8.9 – 19.5), respectively.





EAST AFRICA REGION

CTB East Africa Region (EAR) Project is implemented by KNCV as the lead with MSH and The Union as collaborating partners. Project realignment is currently underway in collaboration with the Intergovernmental Authority on Development (IGAD).

Cross-border Health Committee Coordination

- Cross-border meetings took place in two border areas- Uganda/Kenya and Tanzania/Kenya where nearly 50 health workers exchanged strategies for communication including the start of a WhatsApp group, methods to reduce patient loss to follow-up, and sustainability through designated budgets for continued cross-border activities.

Online Tool for Childhood TB - A training and pilot test of the Online Childhood TB for Healthcare Workers Course Facilitator's Guide took place in Kampala, Uganda. A total of ten health care workers (Physicians and Nurses) were in attendance.

Business Plan for Center of Excellence (CoE) - The project through Blue Edge consultants is currently finalizing the business plan based on the feedback received from the stakeholder dissemination and validation workshops conducted last quarter. The final layout will be completed and shared with the CoE next quarter. It is expected that the operations of the CoE will be improved based on the implementation of the business plan.



MOROTO/TURKANA JOINT CROSS-BORDER HEALTH COMMITTEE MEETING, UGANDA - PHOTO: DENNIS CHALINGA

CORE PROJECTS

CTB is working on priority projects that have implications for TB diagnosis, treatment and prevention globally. Major achievements and highlights from the second quarter of Year 3, April-June 2017 are outlined on the next two pages along with GF Hub progress on page 10.

BEDAQUILINE INTRODUCTION

The CTB Core Bedaquiline Coordination Project facilitates the introduction of ND&R in 23 CTB countries (including Kazakhstan). Steady progress has continued in the respective CTB supported countries, with twenty countries now enrolling patients (759 reported in 2017 Quarter 2) on BDQ or DLM-containing regimens, or STRs.

During the reporting period, seven STTA missions were conducted to assist six CTB-supported countries in the introduction of ND&R.

At the CTB Country Director's meeting, the project coordinator provided an "Update on status of implementation of ND&R for DR-TB in the CTB supported countries". This opportunity was used to advocate with the Country Directors for essential ND&R/PMDT related activities to be included in their respective country Year 4 workplans.

Further information on enrollment in specific countries can be found in on page 17.

STIGMA

TB stigma measurement and reduction continue to be both engaging and challenging issues for Challenge TB and the wider TB community. During this reporting quarter, the following were the major highlights:

- Submission of an International Journal of Tuberculosis and Lung Disease (IJTLD) TB-Stigma Special Issue supplement. The supplement is now complete and will be printed in time for the Union Conference. Some articles will be made available for early online access;
- The "TB Stigma measurement guidance" is complete and undergoing technical review by community representatives, technical partners, PMU, and USAID. The measurement guidance will be launched online in late August;
- The companion curriculum is delayed until in early September; and
- Participation in the NIH Science of Stigma Reduction meeting.

UN SPECIAL ENVOY FOR TUBERCULOSIS

Political efforts on behalf of TB focused largely on linkages to the Anti-Microbial Resistance (AMR) agenda. This culminated in a strong statement from the G20 health ministers on TB and AMR. This effort was facilitated by the German Chancellor's leadership in raising health in the profile of the G20, but required the collective efforts of all stakeholders. Dr. Goosby supported the TB Caucus in their parliamentary session in Berlin in March and conducted bilateral meetings alongside the Stop TB Board Meeting in Berlin in May.

One diplomatic mission to Australia took place. The trip also extended to the Torres Straits with political and health leadership from Australia, the deputy Secretary of Health from PNG, the lead TB doctor from Daru Island and others. The overall conclusion is that the situation in Daru has stabilized for healthcare access in general and for TB in particular but there is still little access in Western Province outside of Daru and that efforts to increase case finding and prevention can still be improved.

CATASTROPHIC COSTS

A generic protocol and instrument (WHO, 2015, TB CARE I) to measure catastrophic costs is undergoing field testing since September 2015. Surveys are complete in Burma (funded by WHO/CO and 3DF), Vietnam (Challenge TB, Year 2), Ghana (LSHTM/USAID), Mongolia (Global Fund and WHO/WPRO), Philippines (Global Fund), Solomon Islands and Timor Leste (Australian National University and WHO/WPRO), and are ongoing in Uganda (US CDC), and China (domestic).

WHO organized a global consultation 10-11 April 2017. A draft handbook and draft changes to the survey methodology and instrument were shared. Countries that completed or started a patient cost survey presented findings, implementation experiences and suggested changes to the survey methodology. WHO presented pooled and comparative analyses across countries with survey data, in order to inform some outstanding methodological decisions for the generic protocol. There were also presentations and discussions about policy implications of survey findings, and recent experiences of policy dialogues were shared. A second draft of the handbook was prepared in

June 2017, and the final version will be published by November 2017.

WHO also presented a draft roadmap for roll-out of patient cost surveys in all 30 high-burden countries by 2010, and cost estimates, including TA. It was decided to further elaborate the roadmap and use it for fundraising and tracking of survey implementation.

PREVENTION

It is expected that all sites in the three countries will be enrolling by mid July 2017 with an average of 175 participants enrolled per week by mid-August. Progress in specific sites is detailed below:

South Africa - In total, 1,162 participants are enrolled in South Africa as of the end of June. The Winnie Mandela Clinic, an Aurum site, enrolling since late 2016, has a total of 566 participants. Tsehpong Hospital, a PHRU site, enrolling since March 2017, has 171 participants. Tembisa clinic (Aurum), enrolling since April, has 298 participants. Empilisweni clinic (PHRU), enrolling since the end of April, has 125 participants. Rustenburg clinic (Aurum), enrolling since mid-June, has 2 participants;

Ethiopia - Regulatory approval was received in March 2017 and sub-agreements between Aurum and Ohio State University were subsequently finalized. Clinical trial insurance was procured. Enrollment in Ethiopia commenced in mid-June 2017. In total, 44 participants were enrolled during the two weeks of activity in June. At Zewditu Hospital, 26 participants were enrolled as of the end of June 2017. At ALERT, 18 participants were enrolled by the end of June 2017;

Mozambique - Regulatory approval was received in June 2017. Arrangements for drug importation were started immediately thereafter. The sub-agreement between Aurum and CISM is signed. Clinical trial insurance was procured. The aim is to start enrollment at CISM in early July 2017.

SHORT PROJECT IN INDIA

PATH is working under this core project to achieve universal access to early TB diagnosis and treatment in the private sector. The effort includes provision of DST to RR-TB patients; linking MDR-TB patients to public sector for treatment and provision of treatment adherence support; enhancing private sector capacity to manage side-effects for MDR-TB patients, etc. PATH identified and engaged a local NGO- Maharashtra Janavikas Kendra (MJK) to support the CTB Core program to achieve its objectives across seven wards in Mumbai. Cumulatively (from March

- June 2017) 176 MDR-TB patients were diagnosed and 163 patients (93%) were provided with drug susceptibility testing. 135 patients (76%) were initiated on treatment in the public sector while 13 DR-TB patients (7%) have culture and DST after which they will be initiated on treatment.

DIAGNOSTIC CONNECTIVITY

CTB Diagnostic Connectivity Project contributes to global- as well as country coordination level activities to optimize diagnostic and clinical services for TB. At global level, the project participates in the GLI diagnostic connectivity task force.

At the 2017 CTB lab workshop, lab focal persons from Botswana and Bangladesh presented their experiences on the implementation of GxAlert. Alexie Korobitsyn from WHO presented the GLI perspective on diagnostic connectivity, Lesly Scott (NHLS) shared the South Africa connectivity model and Kathleen England showed participants how diagnostic data linked with programmatic data can support program planning and monitoring. Selected country updates include:

Malawi: Competitive bidding process for the implementation of GxAlert was reviewed by PMU and has been submitted to USAID.

Bangladesh: National roll-out of diagnostic connectivity is ongoing. Experiences show that the use of the recommended modems by SystemOne eases installation for the teams.

Zambia: The utility of diagnostic connectivity was presented during several meetings with MoH and partners by Robertson Chibumba (FHI 360)

Mozambique: First steps for the multi-device connectivity project were taken, a detailed landscape assessment of all existing laboratory systems was performed.

PUBLICATIONS

Guidance on requirements for QTc measurement in ECG monitoring when introducing new drugs and shorter regimens for the treatment of Multi/Extensively Drug-Resistant Tuberculosis (Russian/Ukrainian)

These documents describe the steps necessary to measure the corrected QT interval from ECG monitoring for patients being treated either with the shorter treatment regimen or the new drugs for drug-resistant TB treatment.

Russian

http://www.challengetb.org/publications/tools/pmdt/Guidance_on_ECG_monitoring_in_NDR.pdf

Ukrainian

http://www.challengetb.org/publications/tools/pmdt/Guidance_on_ECG_monitoring_in_NDR_UKR.pdf

Audiometry in the Management of Drug Resistant TB

This guide is intended to help health providers use audiometry to make informed and patient-centered decisions to prevent and manage ototoxicity resulting from second-line anti-TB injectables.

English

http://www.challengetb.org/publications/tools/pmdt/Audiometry_in_the_Management_of_Drug_Resistant_TB.pdf

Ukrainian

http://www.challengetb.org/publications/tools/pmdt/Audiometry_in_the_Management_of_Drug_Resistant_TB_UKR.pdf

New Drugs and Shorter Regimen Implementation Planning Tool

This tool guides countries through the step-wise process of programmatic introduction of ND&R. It defines key activities meant to lead to national scale-up: political engagement, adaptation of national strategy and policies, site preparation, patient enrollment, and programmatic monitoring and evaluation.

http://www.challengetb.org/publications/tools/pmdt/Implementation_Planning_Tool.zip

Bedaquiline Stickers

This is a job aid for nurses and also visual information for patients. As the use of Bedaquiline is completely new, and there are changes in administration of the drug during the treatment course, this visual material helps healthcare workers to learn the changes and ensure patients receive the right dosage. The dosage charts are available in English, Ukrainian and Russian in one package.

http://www.challengetb.org/publications/tools/pmdt/BDQ_Stickers.zip

Article:

Economic support intervention improves tuberculosis treatment outcomes in rural Nigeria

<http://theunion.us9.list-manage.com/track/click?u=6bdc29f3fb65cf617f7e060fa&id=6e206a34fb&e=b46f99f886>

NEW ONLINE RESOURCES:

<https://www.instagram.com/challengetb>
<https://www.medium.com/@challengetb>
<https://challengetb.exposure.co/>



CHALLENGE TB

We would like to acknowledge all the people across the world who make Challenge TB possible; our gratitude and thanks go out to all our partners and everyone in the field.

Design & layout - Tristan Bayly

Back cover photo: MDR-TB Patient in Kyrgyzstan taking his bedaquiline based regimen - KNCV

© Challenge TB 2017

E-mail
Website
Twitter

info@challengetb.org
www.challengetb.org
[@challengetb](https://twitter.com/challengetb)